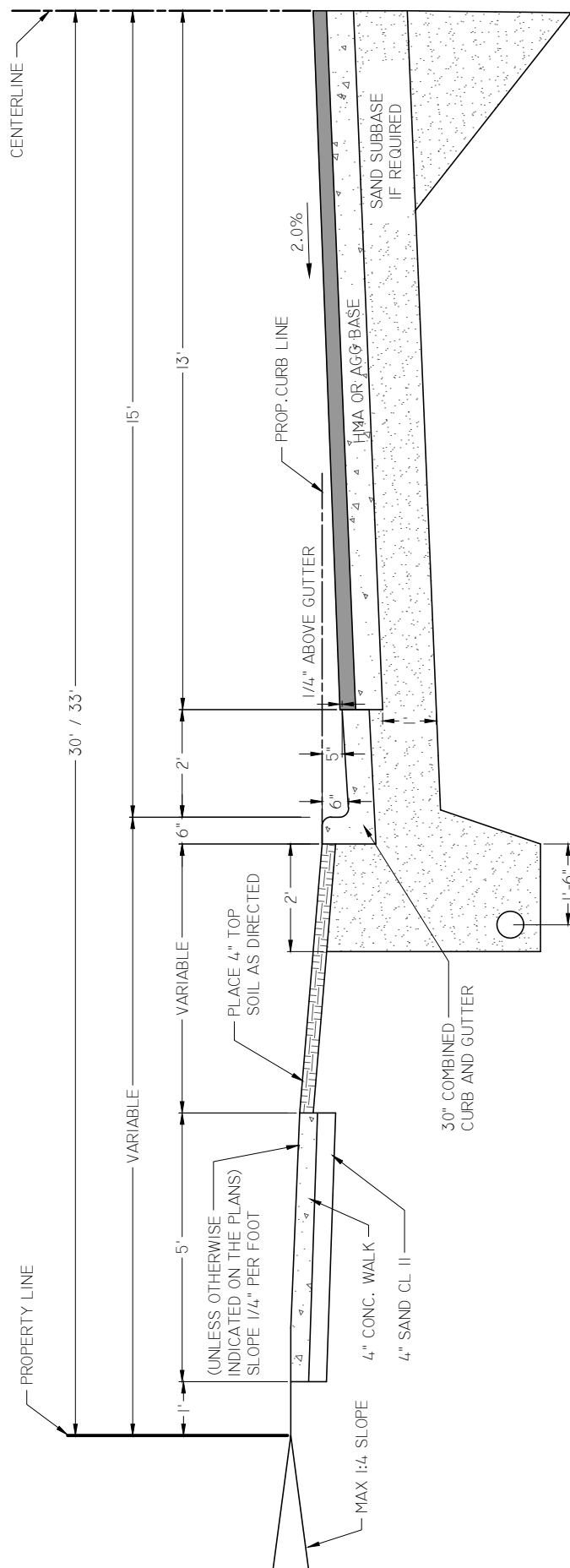


This plan view illustrates a street layout with a 60' / 66' Right of Way (ROW). The street is 10' PUE' wide on both sides. The centerline is marked. Various utility lines and infrastructure are shown, including a street light, a lighting conduit, a water main, a sanitary sewer, and a storm sewer. The diagram also indicates the locations of a gas main, a telecom line, and a T.V. line. Dimensions are provided for the placement of these utilities relative to the centerline and the street edge.

NOTE:
ALL PRIVATE POWER &
COMMUNICATION LINES SHALL BE
PLACED IN P.U.E., IF AVAILABLE

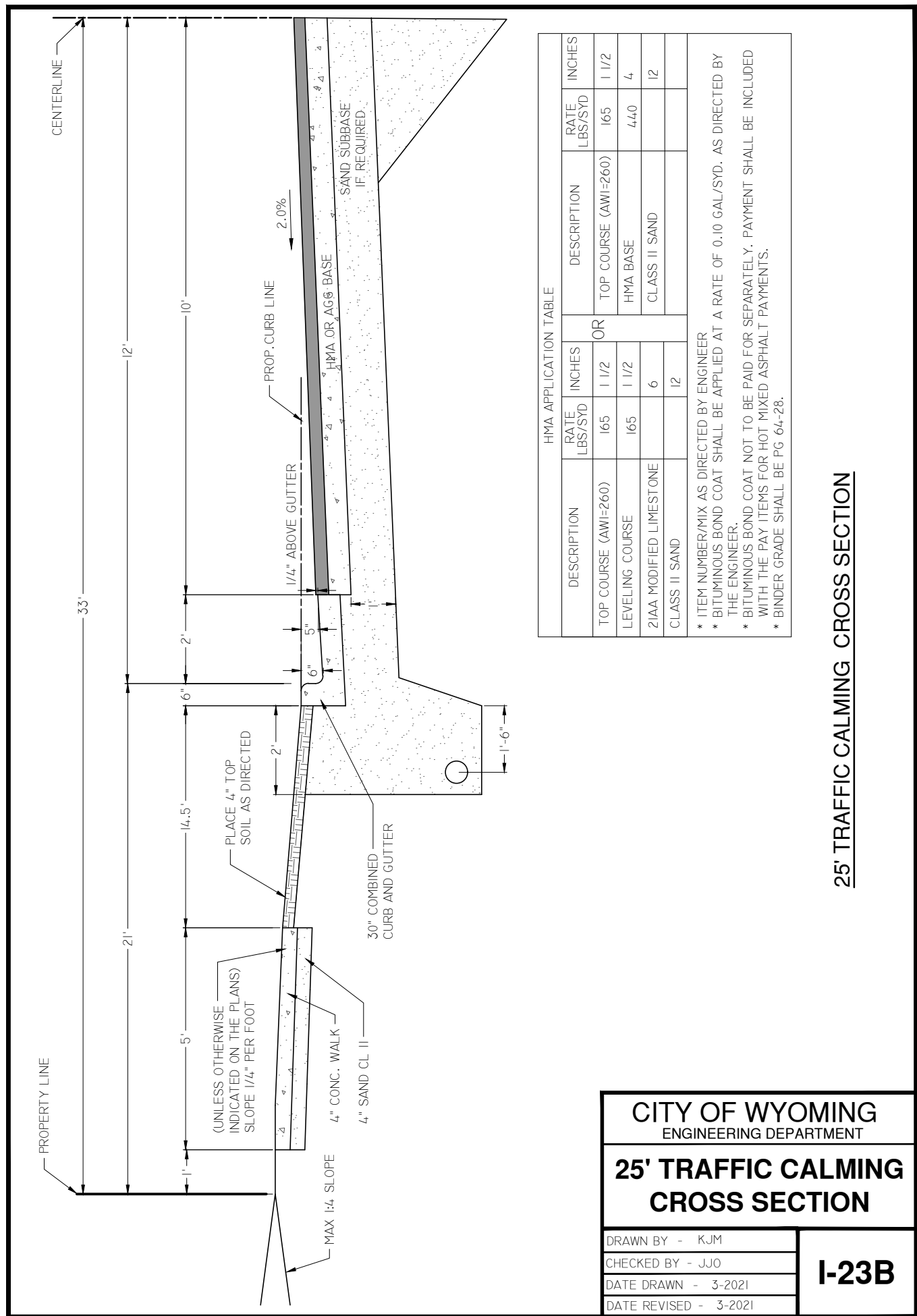
DRAWN BY - KJM
CHECKED BY - JJO
DATE DRAWN - 4-2021
DATE REVISED - 4-2021

I-22



* ITEM NUMBER/MIX AS DIRECTED BY ENGINEER	
* BITUMINOUS BOND COAT SHALL BE APPLIED AT A RATE OF 0.10 GAL/SYD. AS DIRECTED BY THE ENGINEER.	
* BITUMINOUS BOND COAT NOT TO BE PAID FOR SEPARATELY. PAYMENT SHALL BE INCLUDED WITH THE PAY ITEMS FOR HOT MIXED ASPHALT PAYMENTS.	
* BINDER GRADE SHALL BE PG 64-28.	

31' STREET CURB CROSS SECTION



25' TRAFFIC CALMING CROSS SECTION

CITY OF WYOMING
ENGINEERING DEPARTMENT

25' TRAFFIC CALMING
CROSS SECTION

DRAWN BY - KJM

CHECKED BY - JJO

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

I-23B

- * ITEM NUMBER/MIX AS DIRECTED BY ENGINEER
- * BITUMINOUS BOND COAT SHALL BE APPLIED AT A RATE OF 0.10 GAL/SYD. AS DIRECTED BY THE ENGINEER.
- * BITUMINOUS BOND COAT NOT TO BE PAID FOR SEPARATELY. PAYMENT SHALL BE INCLUDED WITH THE PAY ITEMS FOR HOT MIX ASPHALT PAYMENTS.
- * BINDER GRADE SHALL BE PG 64-28.

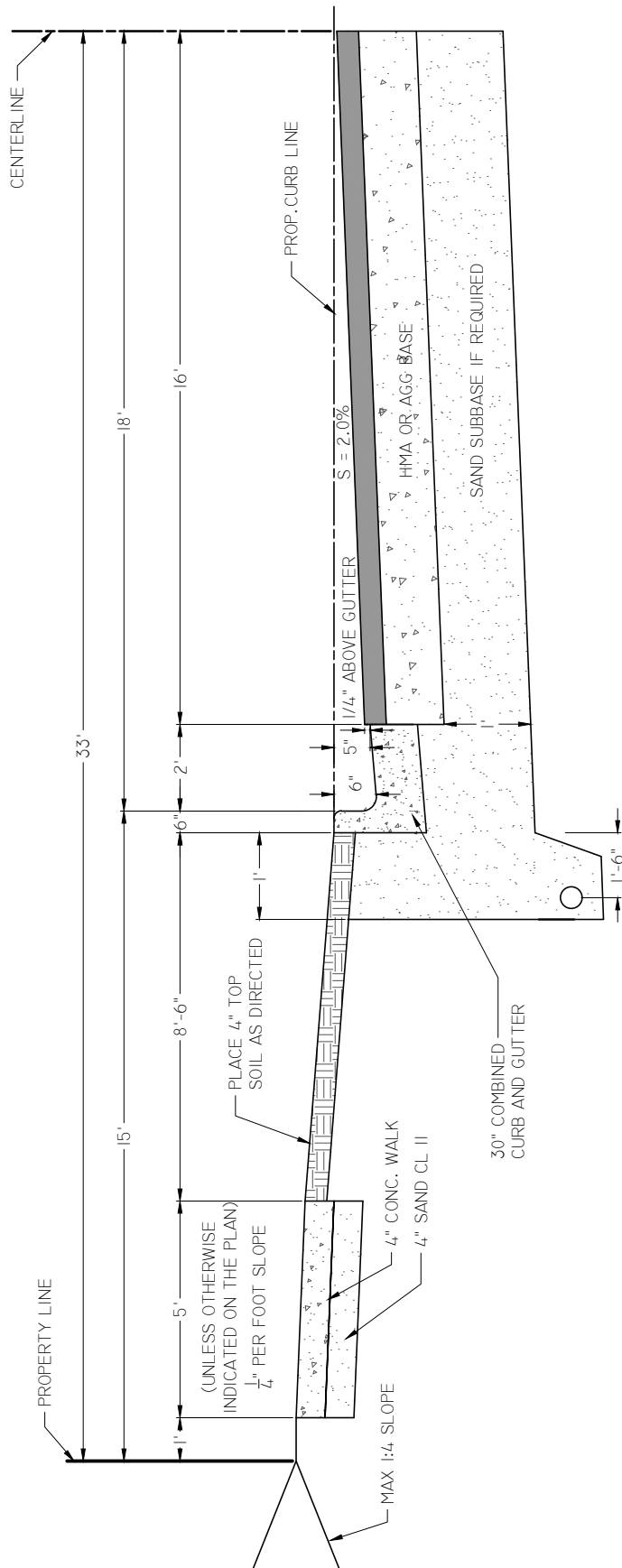
HMA APPLICATION TABLE		
DESCRIPTION	RATE LBS/SYD	INCHES
TOP COURSE (AWI=260)	165	1 1/2
LEVELING COURSE	165	1 1/2
21A MODIFIED LIMESTONE		6
CLASS II SAND		12

* ITEM NUMBER/MIX AS DIRECTED BY ENGINEER
 ** BITUMINOUS BOND COAT SHALL BE APPLIED AT A RATE OF 0.10 GAL/SYD. AS DIRECTED BY THE ENGINEER.
 * BITUMINOUS BOND COAT NOT TO BE PAID FOR SEPARATELY. PAYMENT SHALL BE INCLUDED WITH THE PAY ITEMS FOR HOT MIXED ASPHALT PAYMENTS.
 * BINDER GRADE SHALL BE PG 64-28.

33' STREET CROSS SECTION RESIDENTIAL PLAT

DRAWN BY - KJM
CHECKED BY - JJO
DATE DRAWN - 3-2021
DATE REVISED - 3-2021

I-23C



HMA APPLICATION TABLE					
DESCRIPTION	RATE LBS/SYD	INCHES	DESCRIPTION	RATE LBS/SYD	INCHES
TOP COURSE (AWI=260)	165	1 1/2	TOP COURSE (AWI=260)	165	1 1/2
LEVELING COURSE	165	1 1/2	HMA BASE	605	5 1/2
2/AA MODIFIED LIMESTONE		8	CLASS II SAND		12
CLASS II SAND		12			

* ITEM NUMBER/MIX AS DIRECTED BY ENGINEER
 * BITUMINOUS BOND COAT SHALL BE APPLIED AT A RATE OF 0.10 GAL/SYD. AS DIRECTED BY THE ENGINEER.
 * BITUMINOUS BOND COAT NOT TO BE PAID FOR SEPARATELY. PAYMENT SHALL BE INCLUDED WITH THE PAY ITEMS FOR HOT MIXED ASPHALT PAYMENTS.
 * BINDER GRADE SHALL BE PG 64-28.

37' RESIDENTIAL COLLECTOR (66' ROW W/ SIDEWALK)

CITY OF WYOMING
ENGINEERING DEPARTMENT

37' RESIDENTIAL COLLECTOR -66' ROW

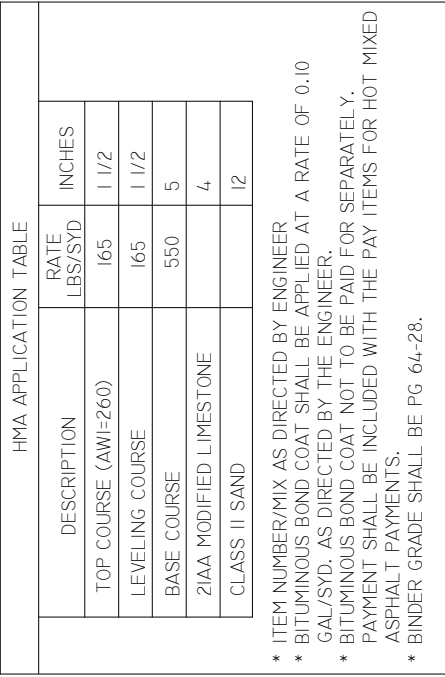
DRAWN BY - KJM

CHECKED BY - JJO

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

I-23D



HMA APPLICATION TABLE		
DESCRIPTION	RATE LBS/SYD	INCHES
TOP COURSE (AWI=260)	165	1 1/2
LEVELING COURSE	165	1 1/2
BASE COURSE	550	5
21AA MODIFIED LIMESTONE		4
CLASS II SAND		12

* ITEM NUMBER/MIX AS DIRECTED BY ENGINEER

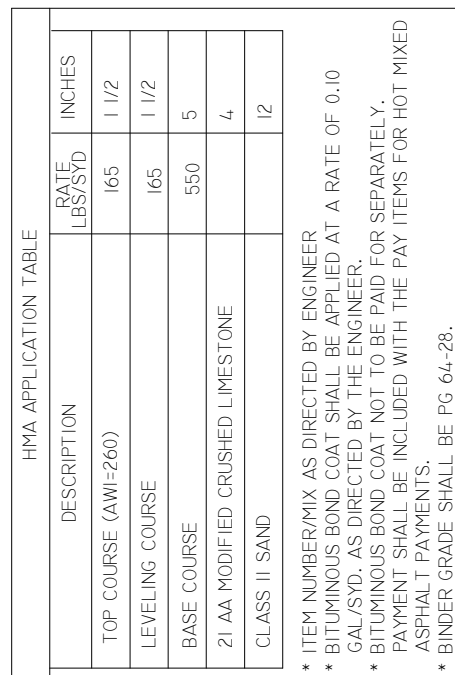
* BITUMINOUS BOND COAT SHALL BE APPLIED AT A RATE OF 0.10 GAL/SYD. AS DIRECTED BY THE ENGINEER.

* BITUMINOUS BOND COAT NOT TO BE PAID FOR SEPARATELY. PAYMENT SHALL BE INCLUDED WITH THE PAY ITEMS FOR HOT MIXED ASPHALT PAYMENTS.

* BINDER GRADE SHALL BE PG 64-28.

53' FOUR-LANE CROSS SECTION

CITY OF WYOMING ENGINEERING DEPARTMENT	
53' FOUR LANE CROSS SECTION	
DRAWN BY - KJM	I-23E
CHECKED BY - JJO	
DATE DRAWN - 3-2021	
DATE REVISED - 3-2021	



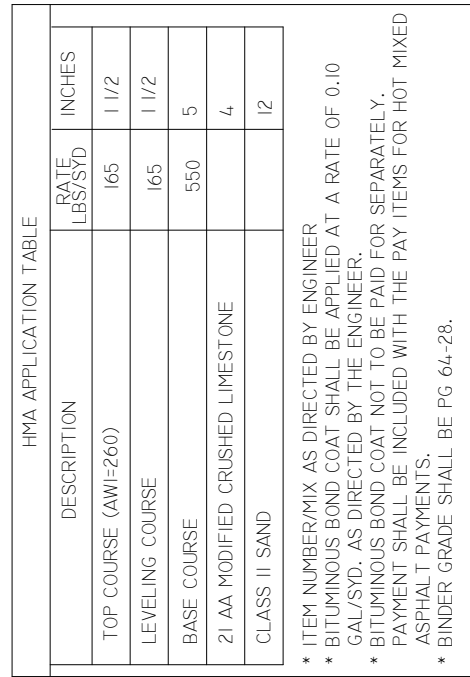
60' FIVE-LANE CROSS SECTION

CITY OF WYOMING
ENGINEERING DEPARTMENT

60' FIVE LANE CROSS SECTION

DATE REVISED - 3-2021

I-23F



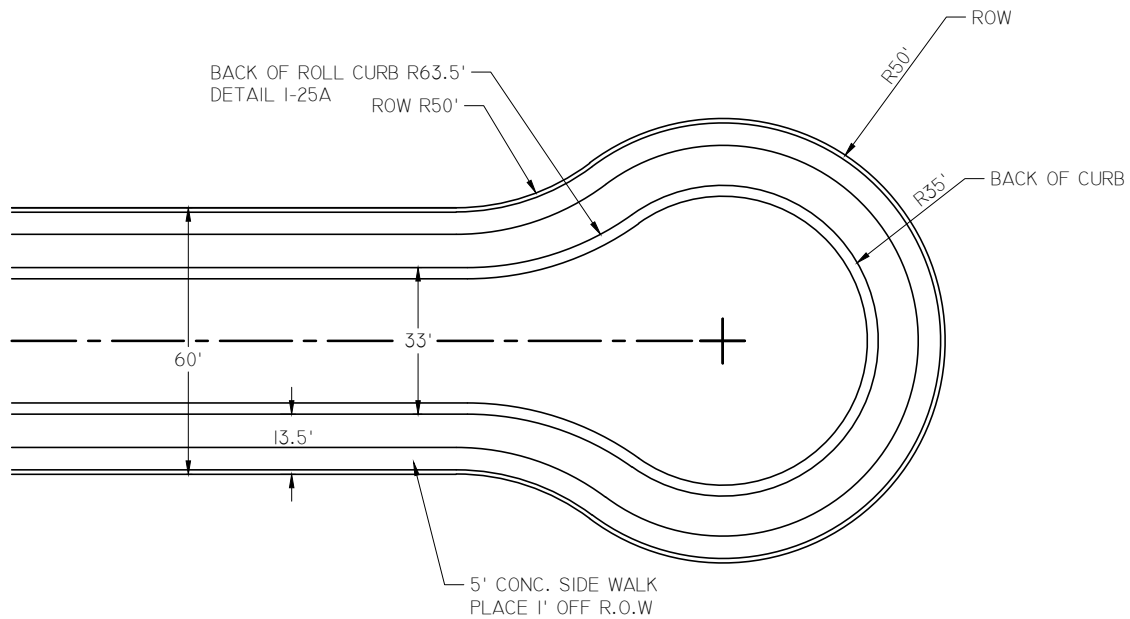
71' SIX-LANE CROSS SECTION

CITY OF WYOMING
ENGINEERING DEPARTMENT

71' SIX LANE CROSS SECTION

DATE REVISED - 3-2021

I-23G



35' RAD. RESIDENTIAL CUL-DE-SAC

CITY OF WYOMING
ENGINEERING DEPARTMENT

**35' RADIUS
CUL-DE-SAC**

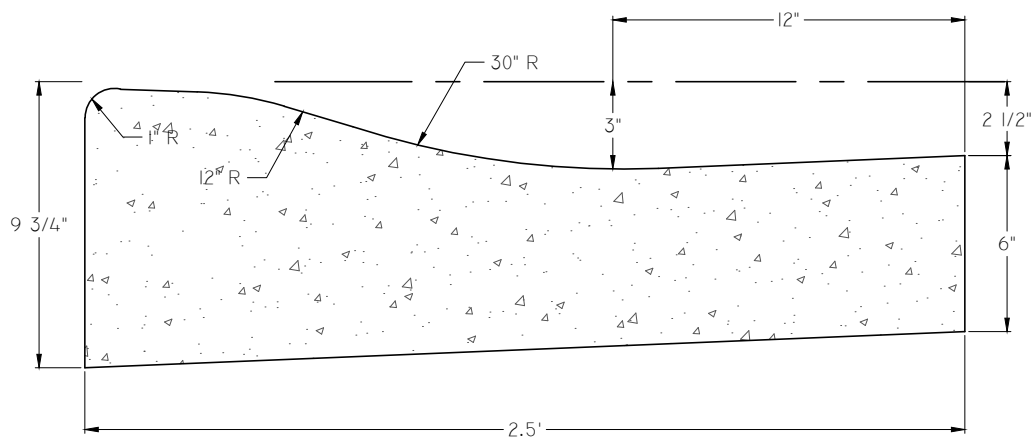
DRAWN BY - KJM

CHECKED BY - JJO

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

I-24



ROLLED (MOUNTABLE) COMBINED
CONCRETE CURB & GUTTER

CITY OF WYOMING
ENGINEERING DEPARTMENT

**ROLLED (MOUNTABLE)
COMBINED CURB AND
GUTTER**

DRAWN BY - KM

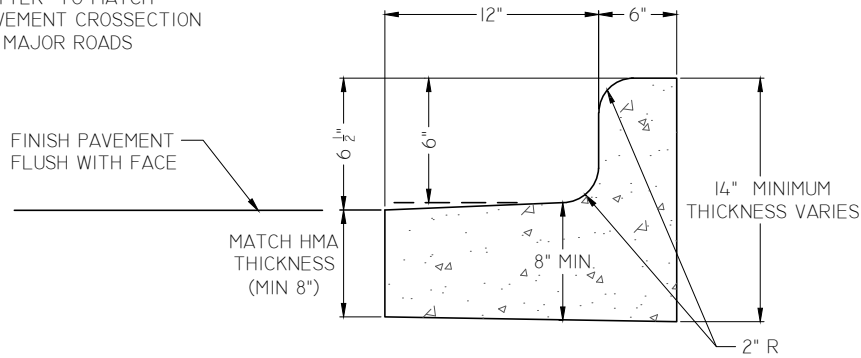
CHECKED BY - JO

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

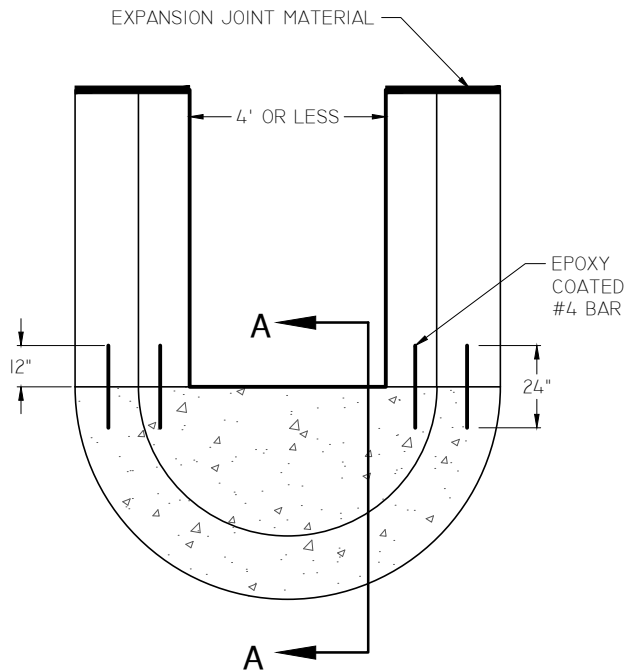
I-25A

THICKNESS OF CURB AND
GUTTER TO MATCH
PAVEMENT CROSSSECTION
ON MAJOR ROADS



18" CONCRETE ISLAND CURB & GUTTER

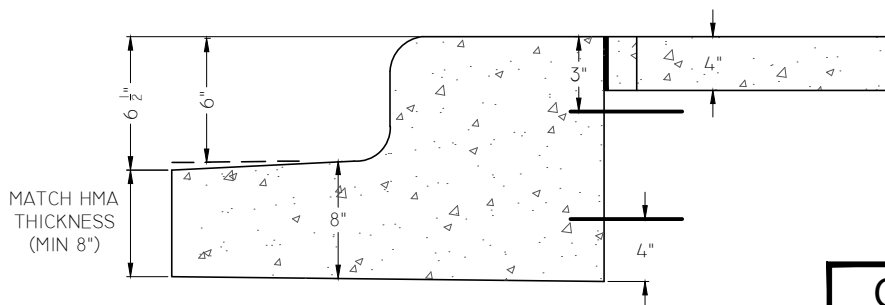
NOT TO SCALE



EPOXY COATED # 4 BAR IS TO BE
NO LESS THAN 24" IN LENGTH
AND EXTEND 12" INTO NOSE OF
ISLAND CURB & GUTTER AND 12"
INTO MAIN LINE CURB & GUTTER

THE NOSE OF THE ISLAND SHALL
BE POURED SOLID FROM
BEGINNING OF RADIUS TO END OF
RADIUS.

EXPANSION MATERIAL SHALL BE
PLACED AT THE CURB AND
GUTTER JOINT PRIOR TO THE #
4 BAR OR AS DIRECTED BY THE
ENGINEER



PROFILE A-A

18" CONCRETE ISLAND CURB & GUTTER MEDIAN ISLAND NOSE

NOT TO SCALE

USE WHEN THE ISLAND IS 4' OR LESS
FROM BACK OF CURB TO BACK OF CURB

CITY OF WYOMING
ENGINEERING DEPARTMENT

18" CONCRETE ISLAND CURB & GUTTER

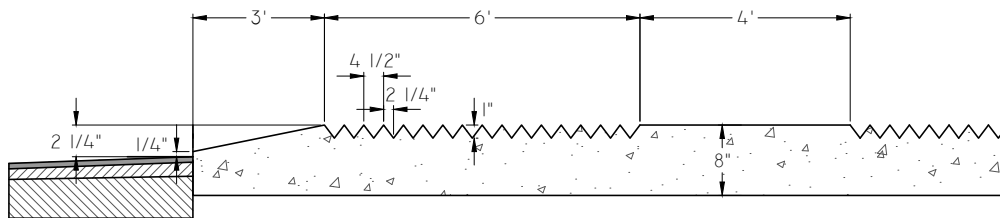
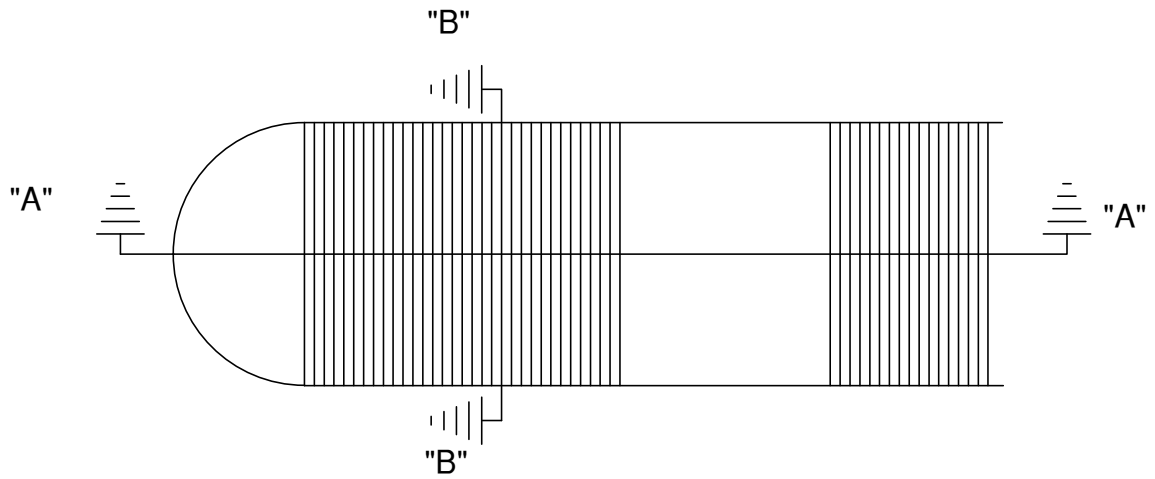
DRAWN BY - KM

CHECKED BY - JO

DATE DRAWN - 3-2021

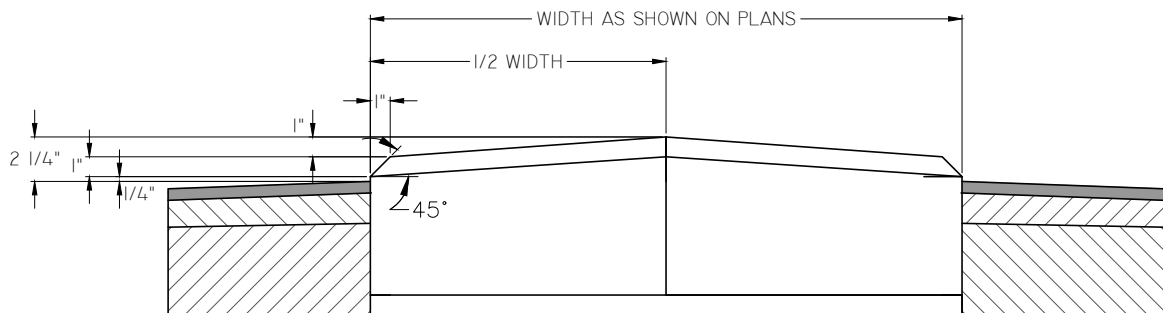
DATE REVISED - 3-2021

I-25B



SECTION "A-A"

CONCRETE RUMBLE STRIP



SECTION "B-B"

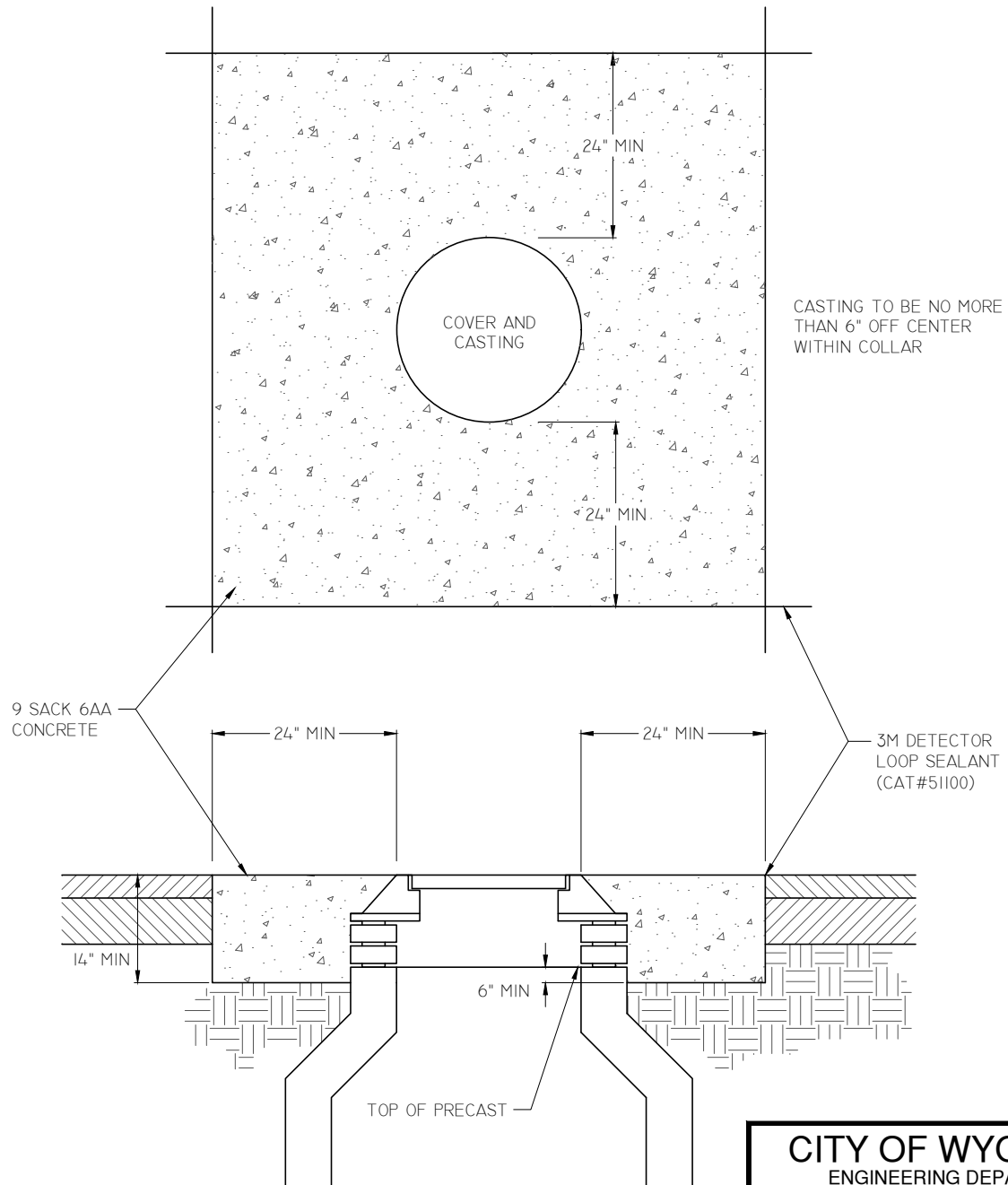
CITY OF WYOMING
ENGINEERING DEPARTMENT

CONCRETE RUMBLE STRIP

DRAWN BY - KM
CHECKED BY - JO
DATE DRAWN - 3-2021
DATE REVISED - 3-2021

I-25C

CONCRETE COLLAR



CITY OF WYOMING
ENGINEERING DEPARTMENT

CONCRETE COLLAR

DRAWN BY - KM

CHECKED BY - JO

DATE DRAWN - 3-2021

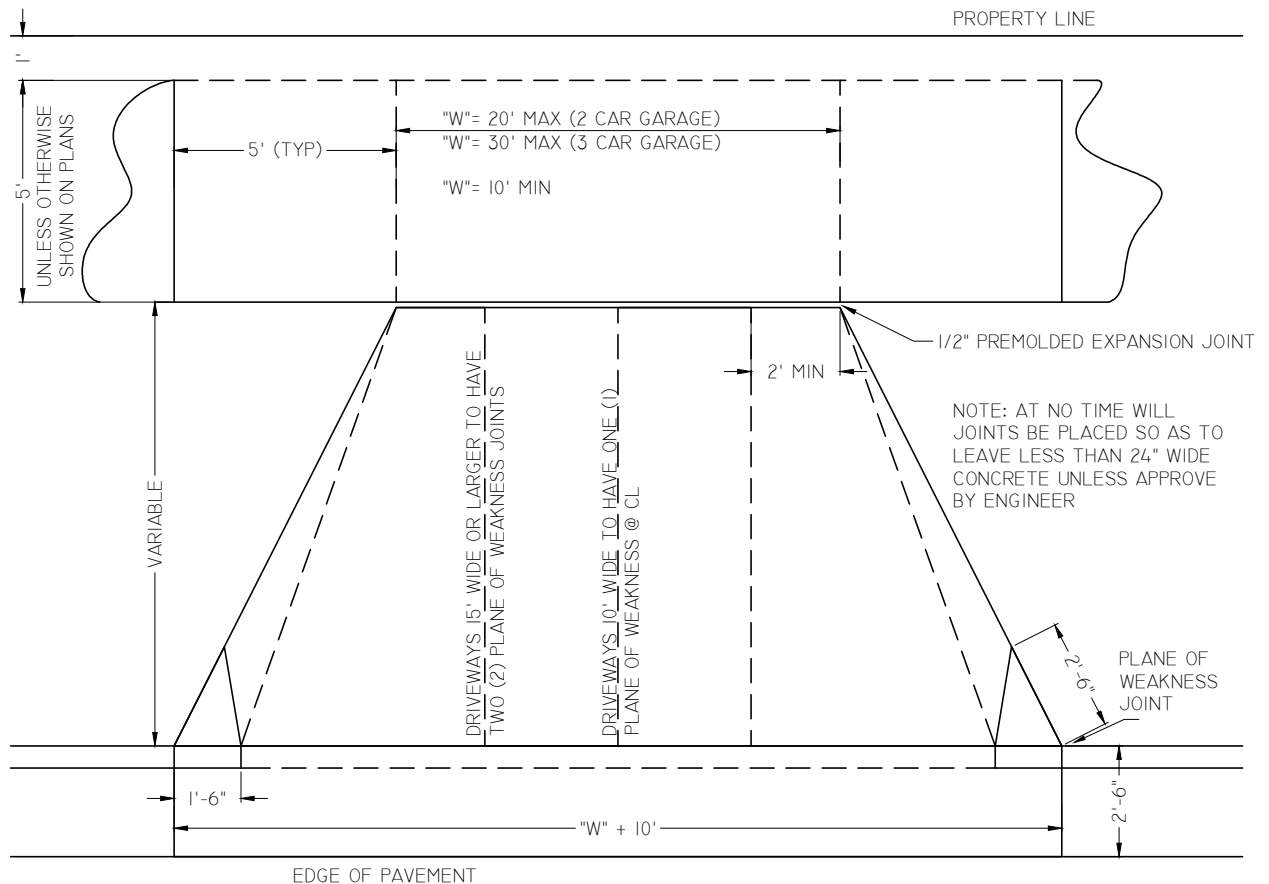
DATE REVISED - 3-2021

I-25D

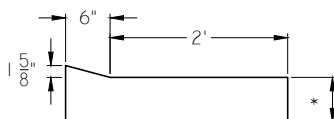
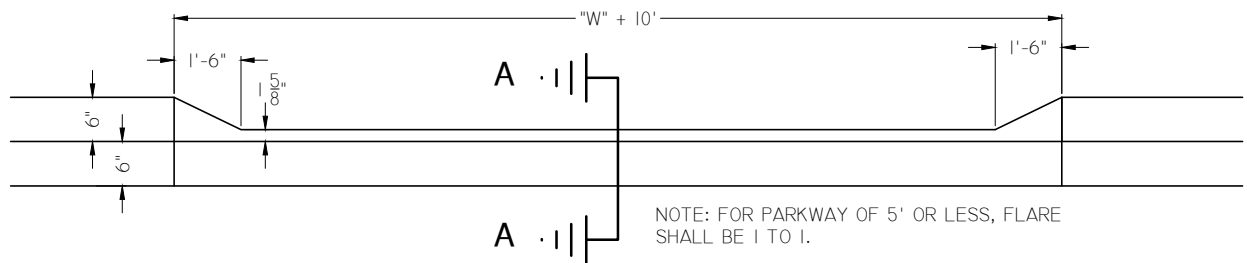


I-25E

RESIDENTIAL DRIVE APPROACH



NOTE: FOR PARKWAY OF 5' OR LESS, FLARE SHALL BE 1 TO 1.



SECTION A-A

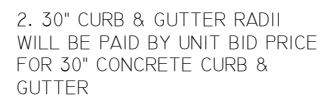
- * 4" THICKNESS FOR RESIDENTIAL
- 8" THICKNESS FOR INDUSTRIAL & COMMERCIAL
- TO BE USED ONLY WITH ENGR AUTHORIZATION

CITY OF WYOMING
ENGINEERING DEPARTMENT

RESIDENTIAL DRIVE APPROACH

DRAWN BY - ML
 CHECKED BY - RH
 DATE DRAWN - 8-07-2003
 DATE REVISED - 6-01-2010

I-26



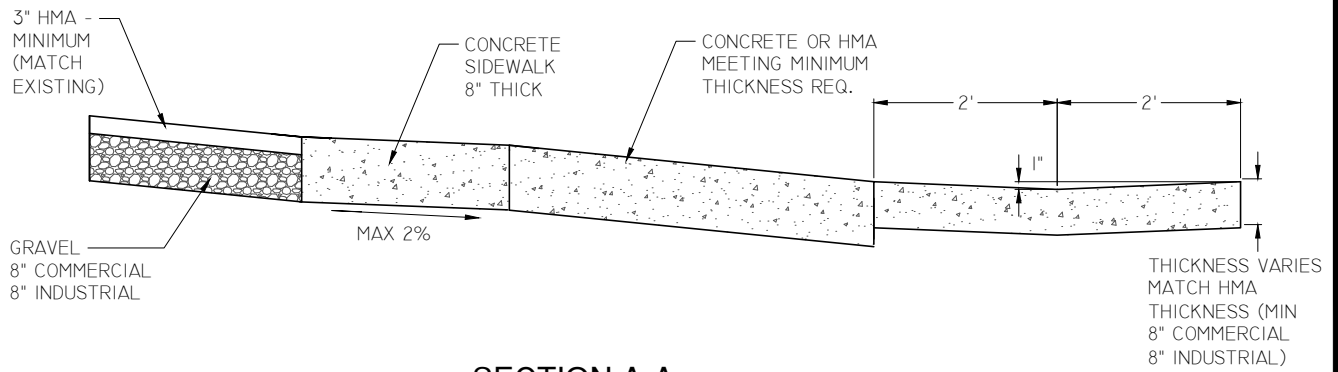
COMMERCIAL/INDUSTRIAL DRIVE APPROACH

CITY OF WYOMING
ENGINEERING DEPARTMENT

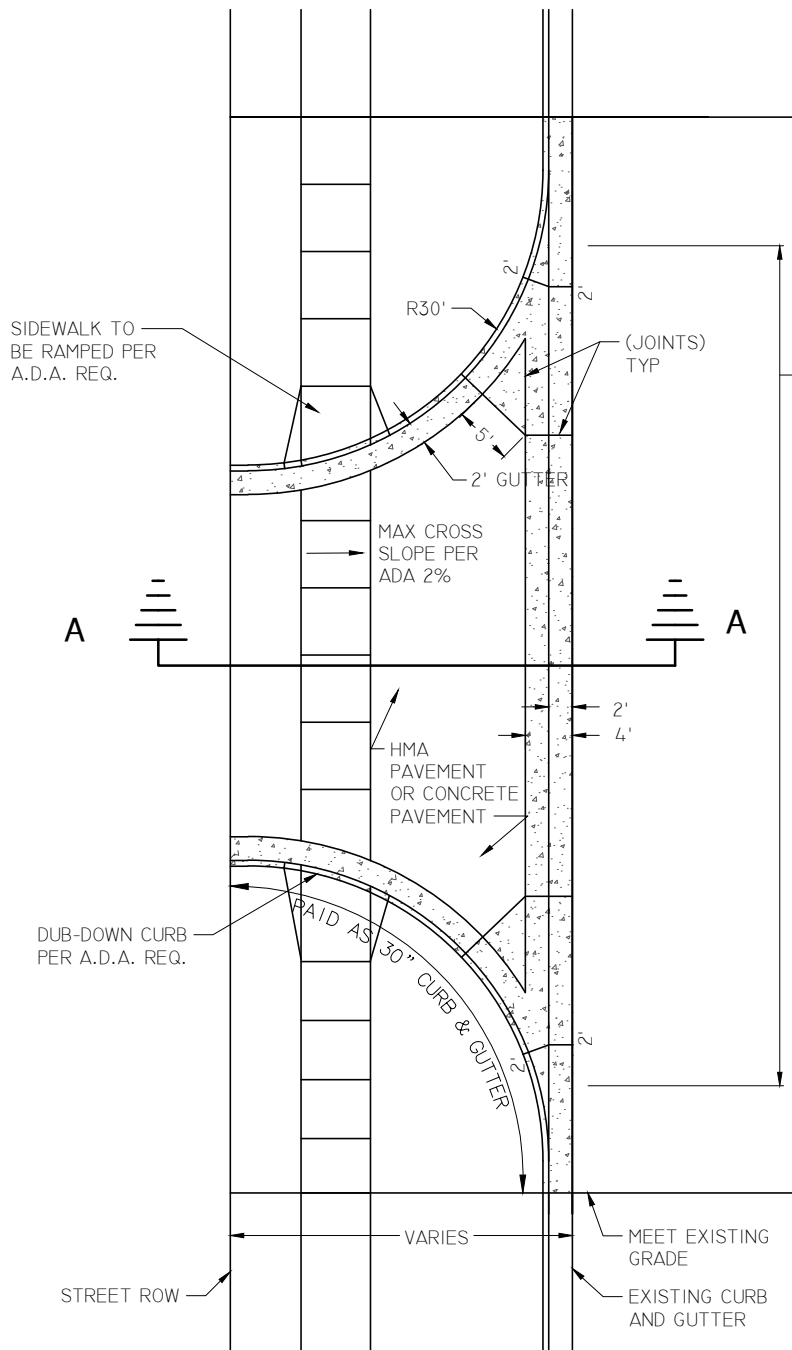
COMMERCIAL/ INDUSTRIAL DRIVE APPROACH

DATE REVISED - 3-2021

I-27A



SECTION A-A



MEASURED DISTANCE WILL DETERMINE UNIT BID QUANTITY FOR CONCRETE GUTTER AND WILL BE PAID BY UNIT BID PRICE FOR 48" CONCRETE GUTTER. 48" CONCRETE GUTTER WORK WILL INCLUDE ALL CONCRETE WITHIN THE OUTLINED AREA.

NOTE:
1. CONCRETE SHALL MEET REQUIREMENTS OF STANDARD SPECIFICATIONS. COARSE AGGREGATE SHALL CONFORM TO MDOT 6AA GRADATION. LIMESTONE AGGREGATE SHALL BE USED.

2. 30" CURB & GUTTER RADII WILL BE PAID BY UNIT BID PRICE FOR 30" CONCRETE CURB & GUTTER

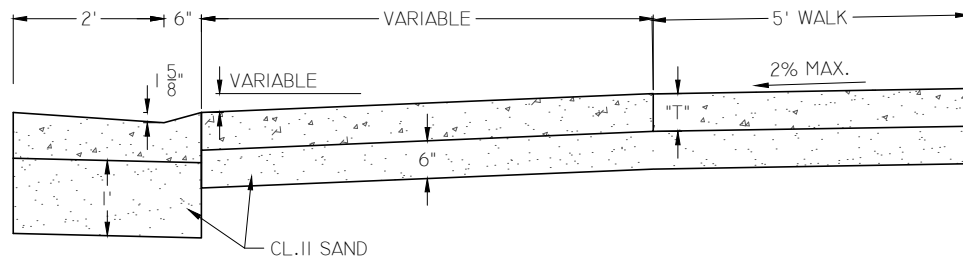
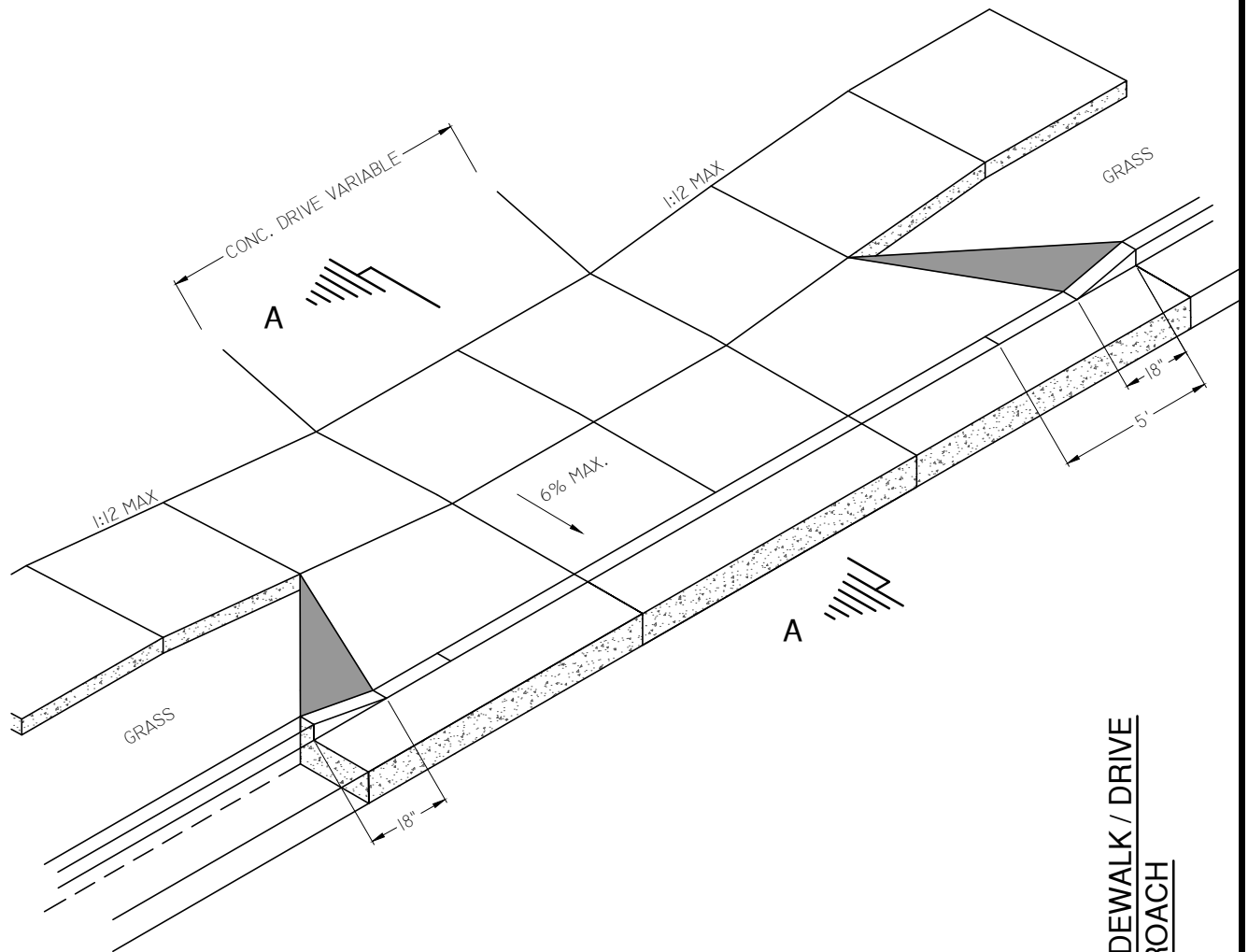
COMMERCIAL/INDUSTRIAL DRIVE APPROACH

CITY OF WYOMING
ENGINEERING DEPARTMENT

**COMMERCIAL/INDUSTRIAL
DRIVE APPROACH WITH
SIDEWALK ACROSS**

DRAWN BY - KJM
CHECKED BY - JJO
DATE DRAWN - 3-2021
DATE REVISED - 3-2021

I-27B



T=4" MIN FOR RESIDENTIAL DRIVEWAY
T=8" MIN FOR COMMERCIAL DRIVEWAY
T=8" MIN FOR INDUSTRIAL DRIVEWAY

DEPRESSED SIDEWALK / DRIVE
APPROACH

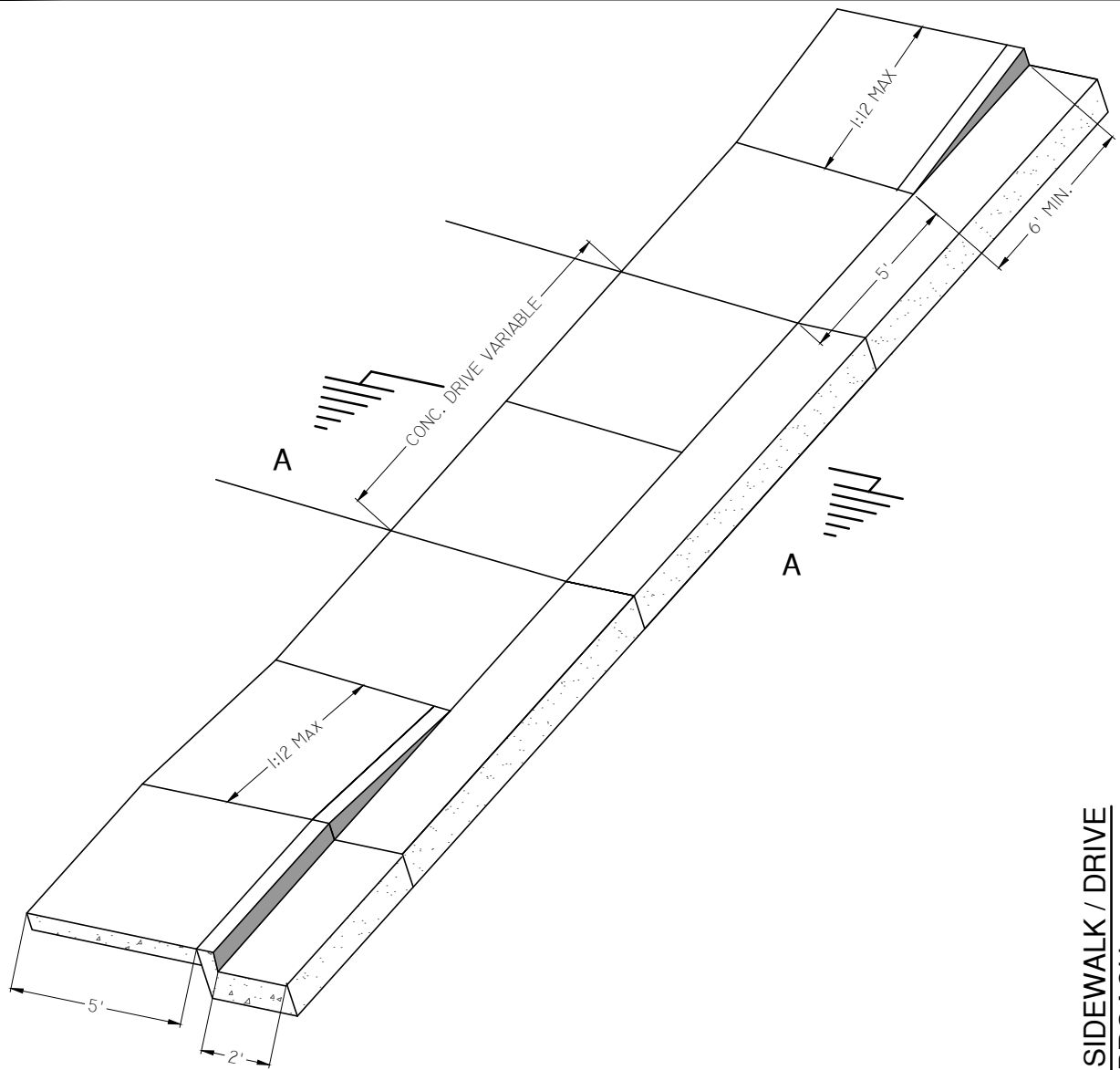
SECTION A-A

CITY OF WYOMING
ENGINEERING DEPARTMENT

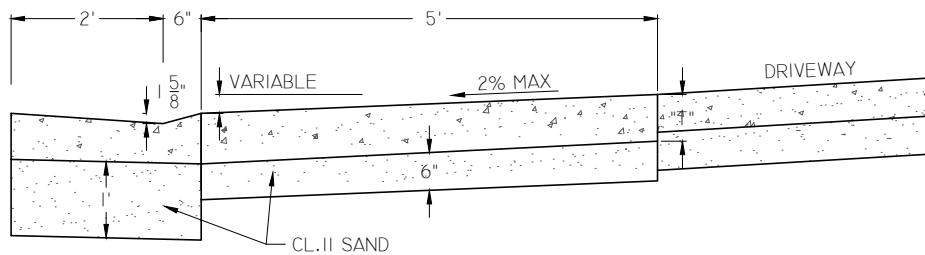
**DEPRESSED SIDEWALK
/ DRIVE APPROACH**

DRAWN BY - KJM
CHECKED BY - JJ0
DATE DRAWN - 3-2021
DATE REVISED - 3-2021

I-28A



DEPRESSED SIDEWALK / DRIVE
APPROACH



T=4" MIN FOR RESIDENTIAL DRIVEWAY
T=8" MIN FOR COMMERCIAL DRIVEWAY
T=8" MIN FOR INDUSTRIAL DRIVEWAY

SECTION A-A

CITY OF WYOMING
ENGINEERING DEPARTMENT

**DEPRESSED SIDEWALK
/ DRIVE APPROACH**

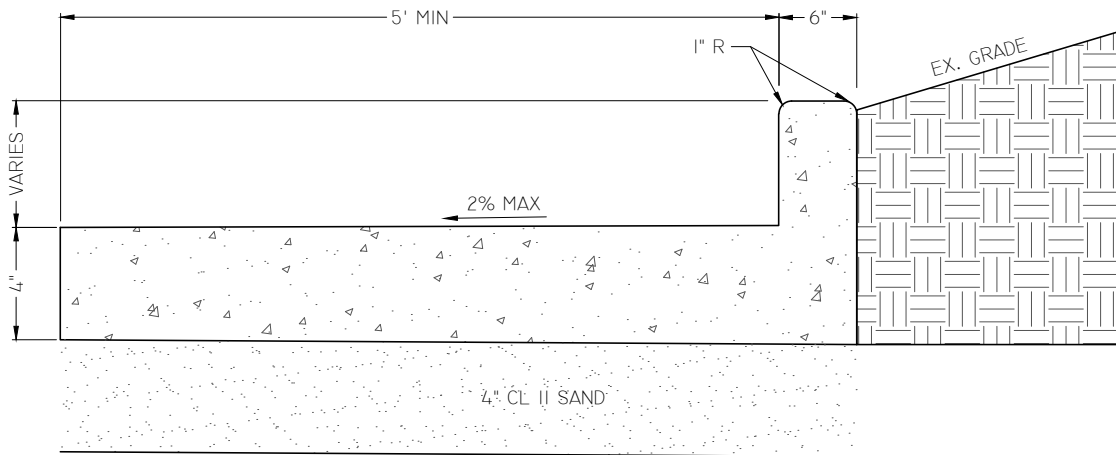
DRAWN BY - KJM

CHECKED BY - JJO

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

I-28B



SIDEWALK WITH INTEGRAL CURB

CITY OF WYOMING
ENGINEERING DEPARTMENT

SIDEWALK WITH INTEGRAL CURB

DRAWN BY - KJM

CHECKED BY - JJO

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

I-28C

This technical cross-section diagram illustrates the construction of a stone retaining wall. The wall is composed of stacked stones, with a vertical height of 1' and a top width of 8". The top of the wall is finished with 4" of topsoil, followed by sand backfill, and then native material. The base of the wall is supported by a 4" concrete foundation. A 4" underdrain is installed in the base of the wall, with weepholes spaced 10' apart. The wall is set back from the ground line by 1' minimum, and the total width of the concrete base is 4' or 5' (concrete). The wall is labeled with a vertical line and the letters "PL".

Dimensions and materials shown in the diagram include:

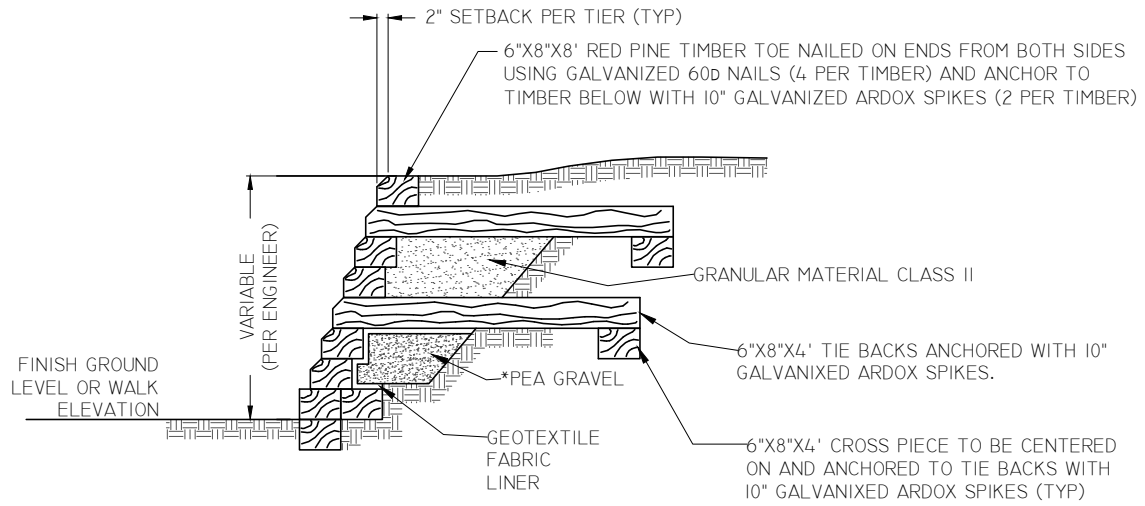
- 8" (top width of stone wall)
- 1' (height of stone wall)
- 2 1/2" (height of topsoil layer)
- 4" (topsoil layer)
- 4" (concrete foundation)
- 4" (underdrain in sock with weepholes 10' apart through base of wall)
- 1' MIN (setback from ground line)
- 1'-6" (width of concrete base)
- 4' OR 5' WALK (CONCRETE) (total width of concrete base)
- 4' (height of native material)
- 3 (slope of native material)
- 1 (width of native material at base)
- PL (vertical line label)
- NATIVE MATERIAL
- SAND BACKFILL
- TOPSOIL 4"
- 4" CONCRETE
- 4" UNDERDRAIN IN SOCK WITH WEEPHOLES 10' APART THROUGH BASE OF WALL

WHERE THE HEIGHT OF THE RETAINING WALL IS GREATER THAN 4'-0", THE FOOTING AND BASE OF THE RETAINING WALL SHALL BE INCREASED $\frac{1}{2}$ " IN WIDTH FOR EVERY 1'-0" OF ADDITIONAL HEIGHT.

GROUTED BROKEN CONCRETE RETAINING WALL

I-29B

** ALL TIMBERS TO MEET 0.6 PCF TREATMENT RETENTION



SIDE VIEW

*PEA GRAVEL GRADING SIEVE ANALYSIS
PERCENT PASSING

$\frac{1}{2}$ " = 100

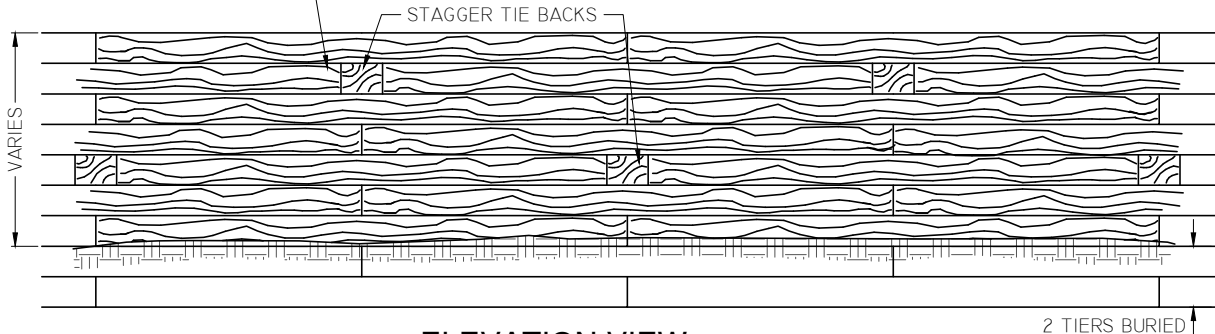
$\frac{3}{8}$ " = 95-100

NO. 4 = 30-60

NO. 8 = 0-10

LOSS BY WASHING = 0-.8

TIMBERS BETWEEN TIE BACKS TO BE CUT TO FIT.
(INCLUDED IN PAY ITEM)



ELEVATION VIEW

MEASUREMENT AND PAYMENT:

THE COMPLETED WORK AS MEASURED FOR TREATED TIMBER WALL WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BASED ON 8 LFT. OF TIMBER = T EA. EXCAVATION FOR WALL, GEOTEXTILE FABRIC LINER, PEA GRAVEL, CLASS II BACK FILL AND HARDWARE ARE INCLUDED IN ITEM.

PAY ITEM	PAY UNIT
TREATED TIMBER FOR WALL (6"X8"X8')	EACH

CITY OF WYOMING
ENGINEERING DEPARTMENT

**TREATED TIMBER
WALL**

DRAWN BY - KJM

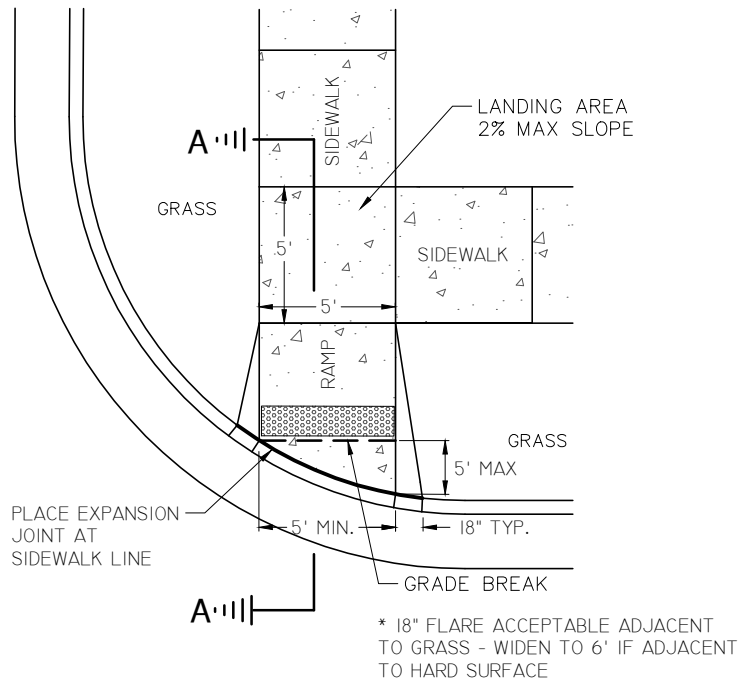
CHECKED BY - JJ0

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

I-29C

TREATED TIMBER WALL



NOTES:

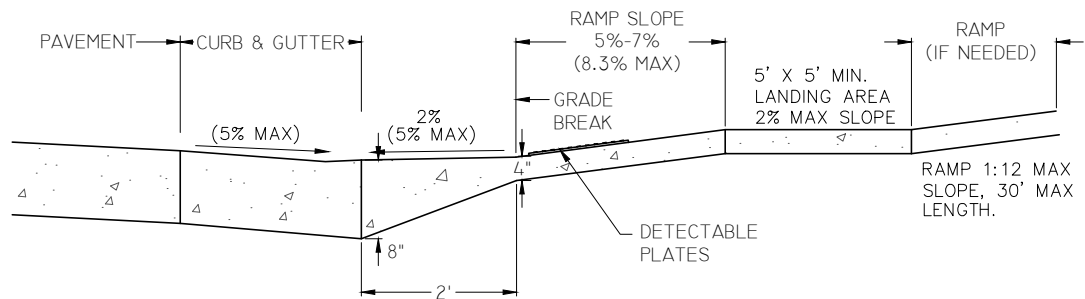
SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY A COARSE BROOMING, TRANSVERSE TO THE SLOPE OF THE RAMP.

CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP, FREE OF SAGS AND SHORT GRADE CHANGES WHERE CONDITIONS PERMIT. IT IS DESIRABLE THAT THE SLOPE OF THE RAMP BE IN ONLY ONE DIRECTION, PARALLEL TO THE DIRECTION OF TRAVEL.

DRAINAGE STRUCTURES SHOULD NOT BE PLACED IN LINE WITH RAMPS, EXCEPT WHERE EXISTING DRAINAGE STRUCTURES ARE BEING UTILIZED. IN NEW CONSTRUCTION, LOCATION OF THE RAMP SHOULD TAKE PRECEDENCE OVER LOCATION OF DRAINAGE STRUCTURES.

THE TOP OF THE EXPANSION JOINT SHALL BE FLUSH WITH ADJACENT CONCRETE.

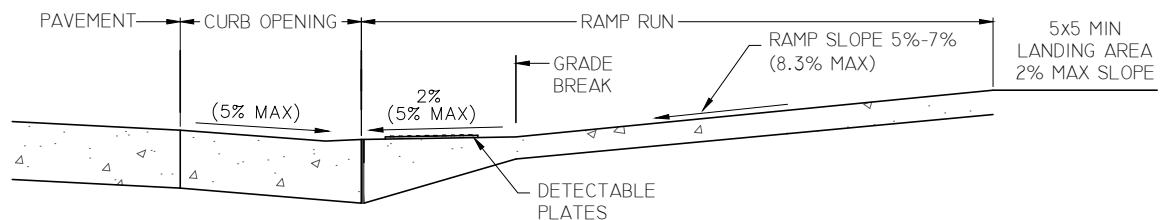
DETECTABLE WARNINGS SHALL BE CENTERED ALONG THE BOTTOM OF DUB-DOWN. THEY SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS LESS THAN 2" FROM THE BACK OF CURB.



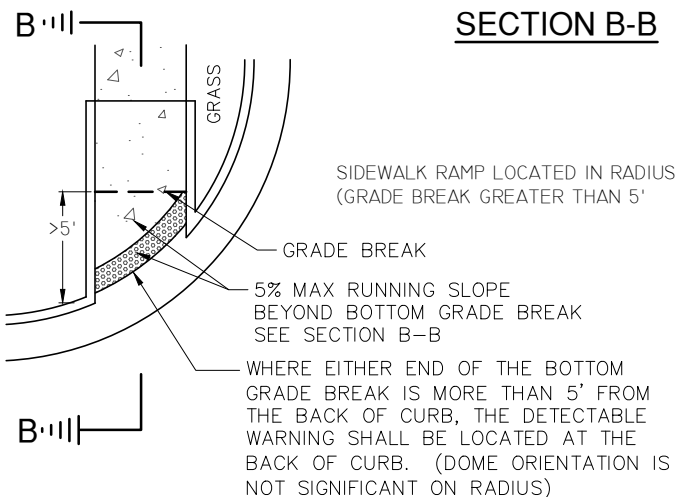
SECTION A-A

CAST IRON DETECTABLE WARNING PLATE SHALL BE:
EAST JORDAN IRON WORKS TRUNCATED COVER-PRODUCT No.
0070054I, TUFTILE FED 37038, ADA SOLUTIONS IRON
DOME, OR APPROVED EQUAL

ALL RAMPS MUST MEET CURRENT STATE
AND FEDERAL ADA REQUIREMENTS
REFER TO CURRENT M.D.O.T. SIDEWALK
RAMP DETAILS FOR DETECTABLE
WARNING DETAILS



SECTION B-B



USE WHEN RAMP INTERSECT
CURB AT SKEWED ANGLE

CITY OF WYOMING
ENGINEERING DEPARTMENT

SIDEWALK RAMP TYPE I

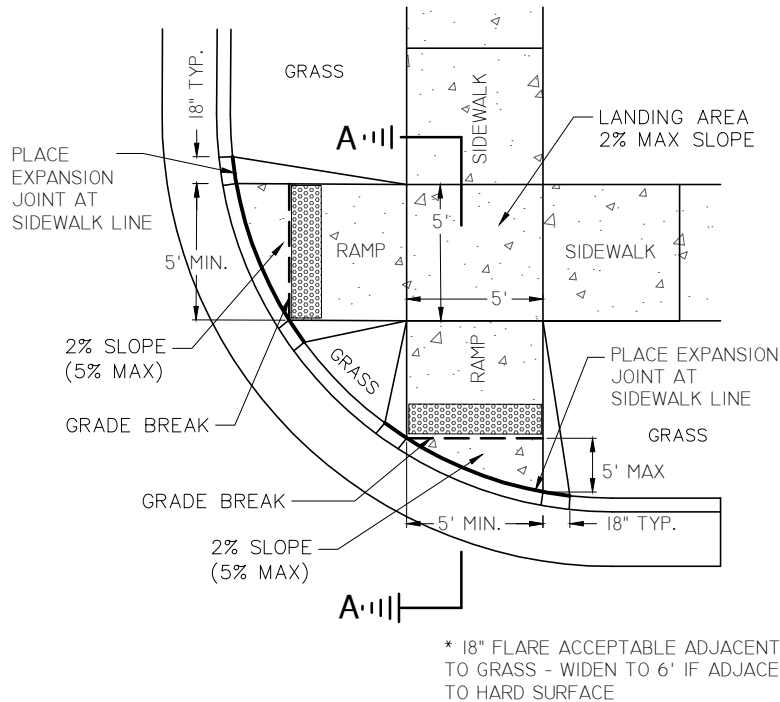
DRAWN BY - KJM

CHECKED BY - JJO

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

I-30A



NOTES:

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY A COARSE BROOMING, TRANSVERSE TO THE SLOPE OF THE RAMP.

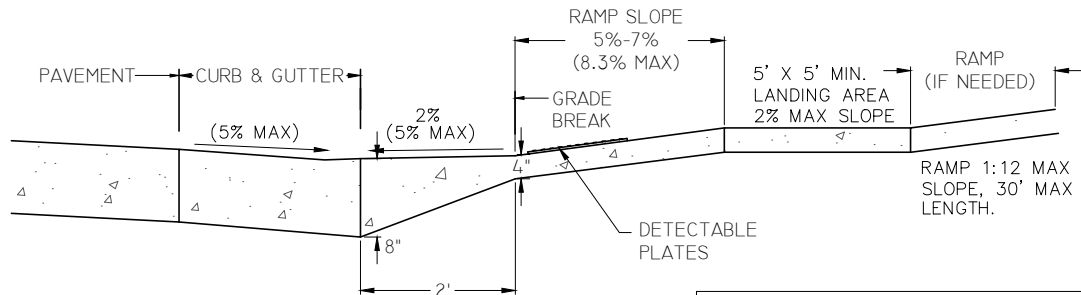
CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP, FREE OF SAGS AND SHORT GRADE CHANGES WHERE CONDITIONS PERMIT. IT IS DESIRABLE THAT THE SLOPE OF THE RAMP BE IN ONLY ONE DIRECTION, PARALLEL TO THE DIRECTION OF TRAVEL.

DRAINAGE STRUCTURES SHOULD NOT BE PLACED IN LINE WITH RAMPS, EXCEPT WHERE EXISTING DRAINAGE STRUCTURES ARE BEING UTILIZED. IN NEW CONSTRUCTION, LOCATION OF THE RAMP SHOULD TAKE PRECEDENCE OVER LOCATION OF DRAINAGE STRUCTURES.

THE TOP OF THE EXPANSION JOINT SHALL BE FLUSH WITH ADJACENT CONCRETE.

DETECTABLE WARNINGS SHALL BE CENTERED ALONG THE BOTTOM OF DUB-DOWN. THEY SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS LESS THAN 2" FROM BACK OF THE CURB.

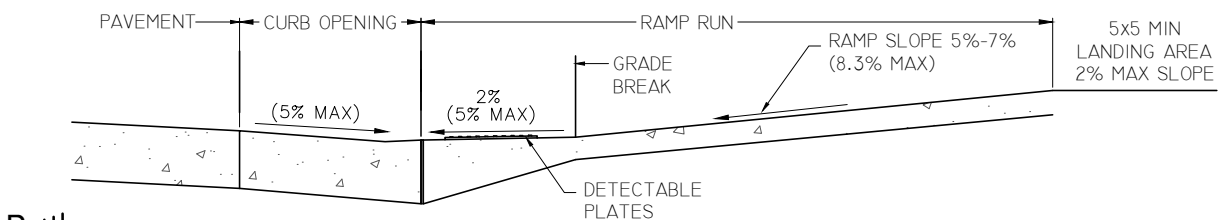
* 18" FLARE ACCEPTABLE ADJACENT TO GRASS - WIDEN TO 6' IF ADJACENT TO HARD SURFACE



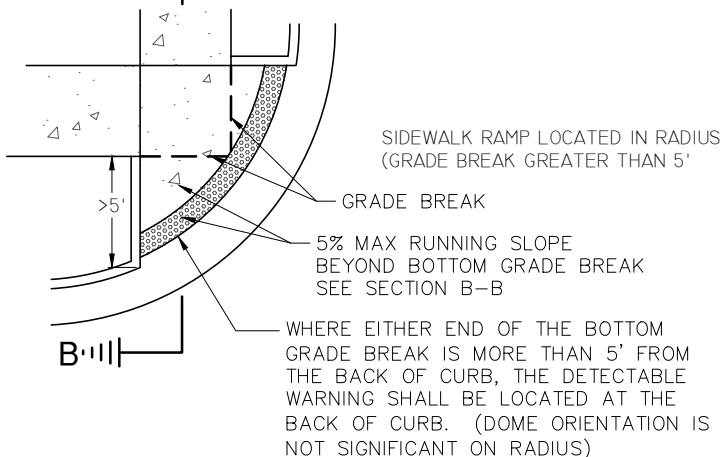
SECTION A-A

CAST IRON DETECTABLE WARNING PLATE SHALL BE:
EAST JORDAN IRON WORKS TRUNCATED COVER-PRODUCT NO.
00700541, TufTile FED 37038, ADA SOLUTIONS IRON
DOME, OR APPROVED EQUAL

ALL RAMPS MUST MEET CURRENT STATE AND FEDERAL ADA REQUIREMENTS REFER TO CURRENT M.D.O.T. SIDEWALK RAMP DETAILS FOR DETECTABLE WARNING DETAILS



SECTION B-B



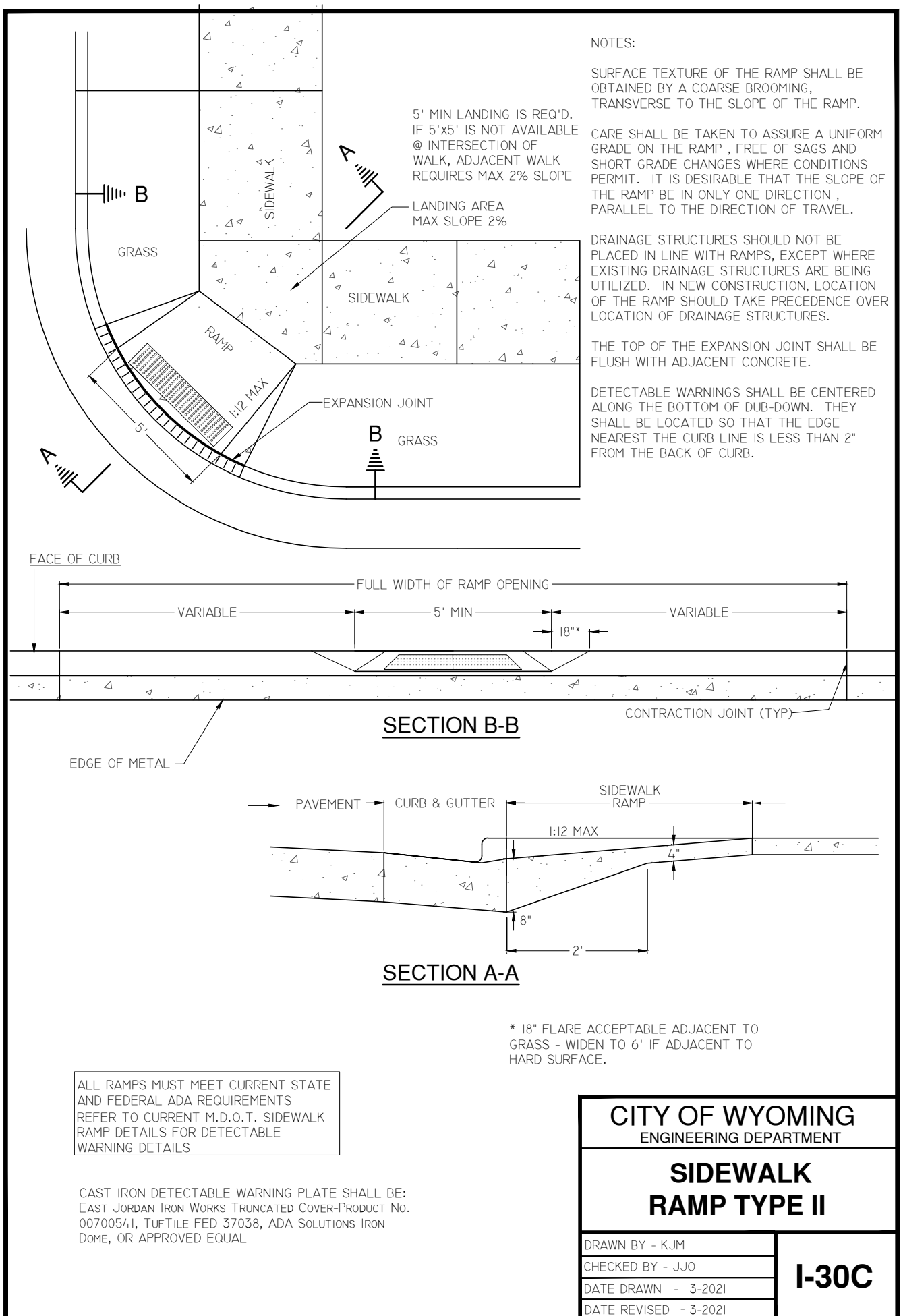
USE WHEN TWO WALKS INTERSECT CURB AT SKEWED ANGLE

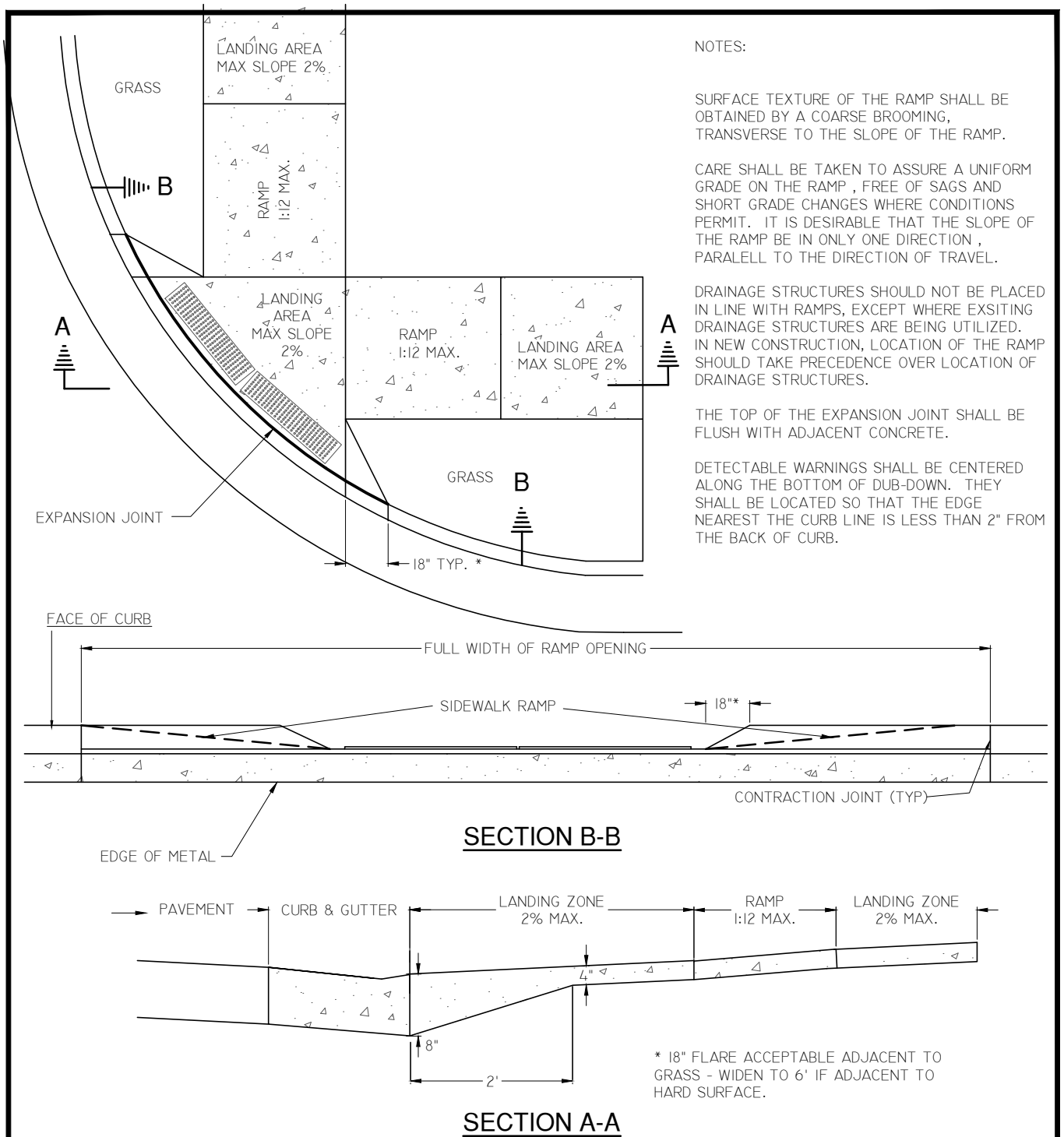
CITY OF WYOMING
ENGINEERING DEPARTMENT

SIDEWALK RAMP TYPE I

DRAWN BY - KJM
CHECKED BY - JJO
DATE DRAWN - 3-2021
DATE REVISED - 3-2021

I-30B





ALL RAMPS MUST MEET CURRENT STATE AND FEDERAL ADA REQUIREMENTS REFER TO CURRENT M.D.O.T. SIDEWALK RAMP DETAILS FOR DETECTABLE WARNING DETAILS

CAST IRON DETECTABLE WARNING PLATE SHALL BE:
EAST JORDAN IRON WORKS TRUNCATED COVER-PRODUCT No.
00700541, TuFTile FED 37038, ADA SOLUTIONS IRON
Dome, OR APPROVED EQUAL

CASE I

CITY OF WYOMING
ENGINEERING DEPARTMENT

SIDEWALK RAMP TYPE II

DRAWN BY - KJM

CHECKED BY - JJO

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

I-30D

NOTES:

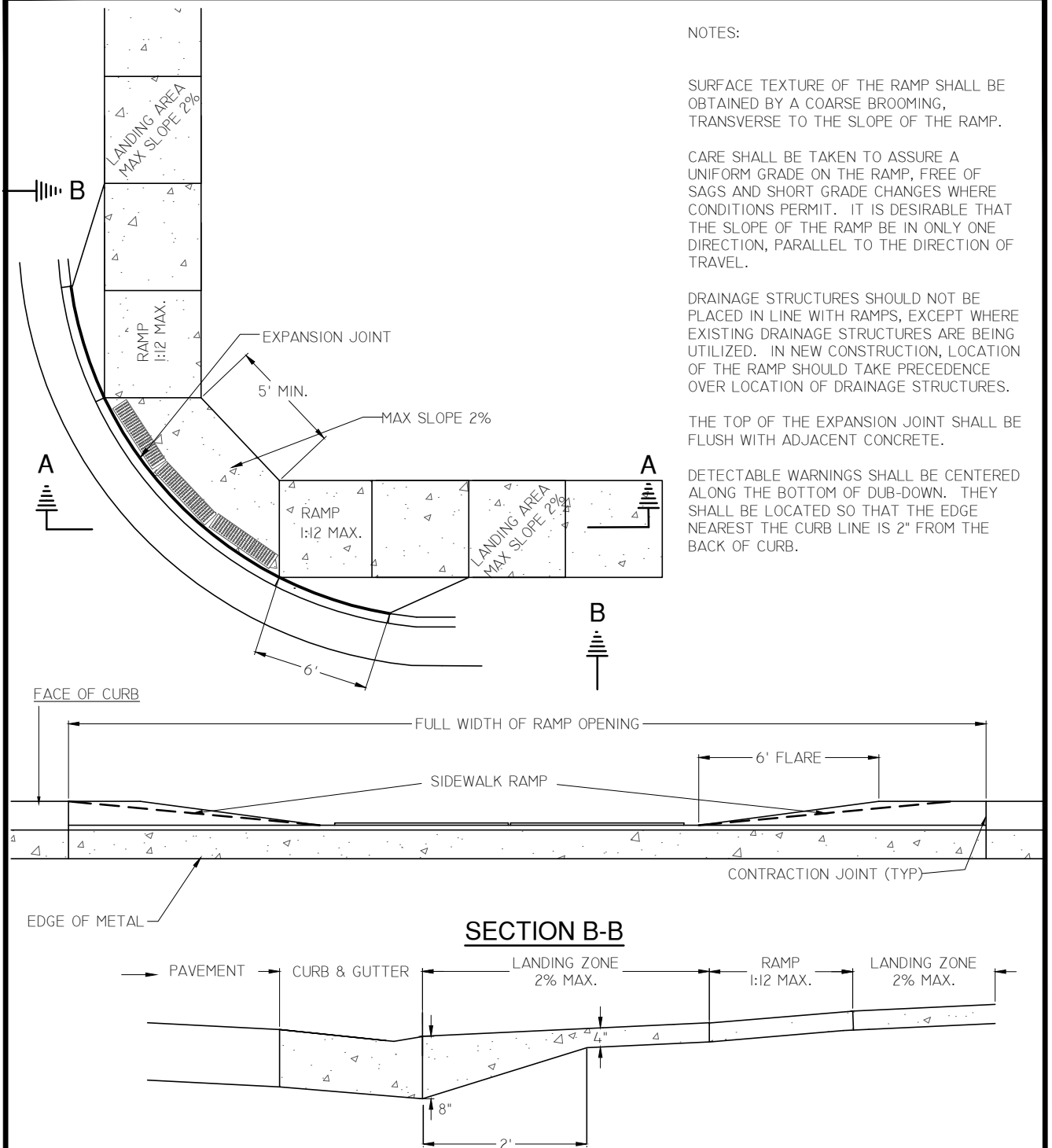
SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY A COARSE BROOMING, TRANSVERSE TO THE SLOPE OF THE RAMP.

CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP, FREE OF SAGS AND SHORT GRADE CHANGES WHERE CONDITIONS PERMIT. IT IS DESIRABLE THAT THE SLOPE OF THE RAMP BE IN ONLY ONE DIRECTION, PARALLEL TO THE DIRECTION OF TRAVEL.

DRAINAGE STRUCTURES SHOULD NOT BE PLACED IN LINE WITH RAMPS, EXCEPT WHERE EXISTING DRAINAGE STRUCTURES ARE BEING UTILIZED. IN NEW CONSTRUCTION, LOCATION OF THE RAMP SHOULD TAKE PRECEDENCE OVER LOCATION OF DRAINAGE STRUCTURES.

THE TOP OF THE EXPANSION JOINT SHALL BE FLUSH WITH ADJACENT CONCRETE.

DETECTABLE WARNINGS SHALL BE CENTERED ALONG THE BOTTOM OF DUB-DOWN. THEY SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 2" FROM THE BACK OF CURB.



SECTION B-B

SECTION A-A

ALL RAMPS MUST MEET CURRENT STATE AND FEDERAL ADA REQUIREMENTS REFER TO CURRENT M.D.O.T. SIDEWALK RAMP DETAILS FOR DETECTABLE WARNING DETAILS

CAST IRON DETECTABLE WARNING PLATE SHALL BE: EAST JORDAN IRON WORKS TRUNCATED COVER-PRODUCT No. 00700541, TufTile FED 37038, ADA SOLUTIONS IRON DOME, OR APPROVED EQUAL

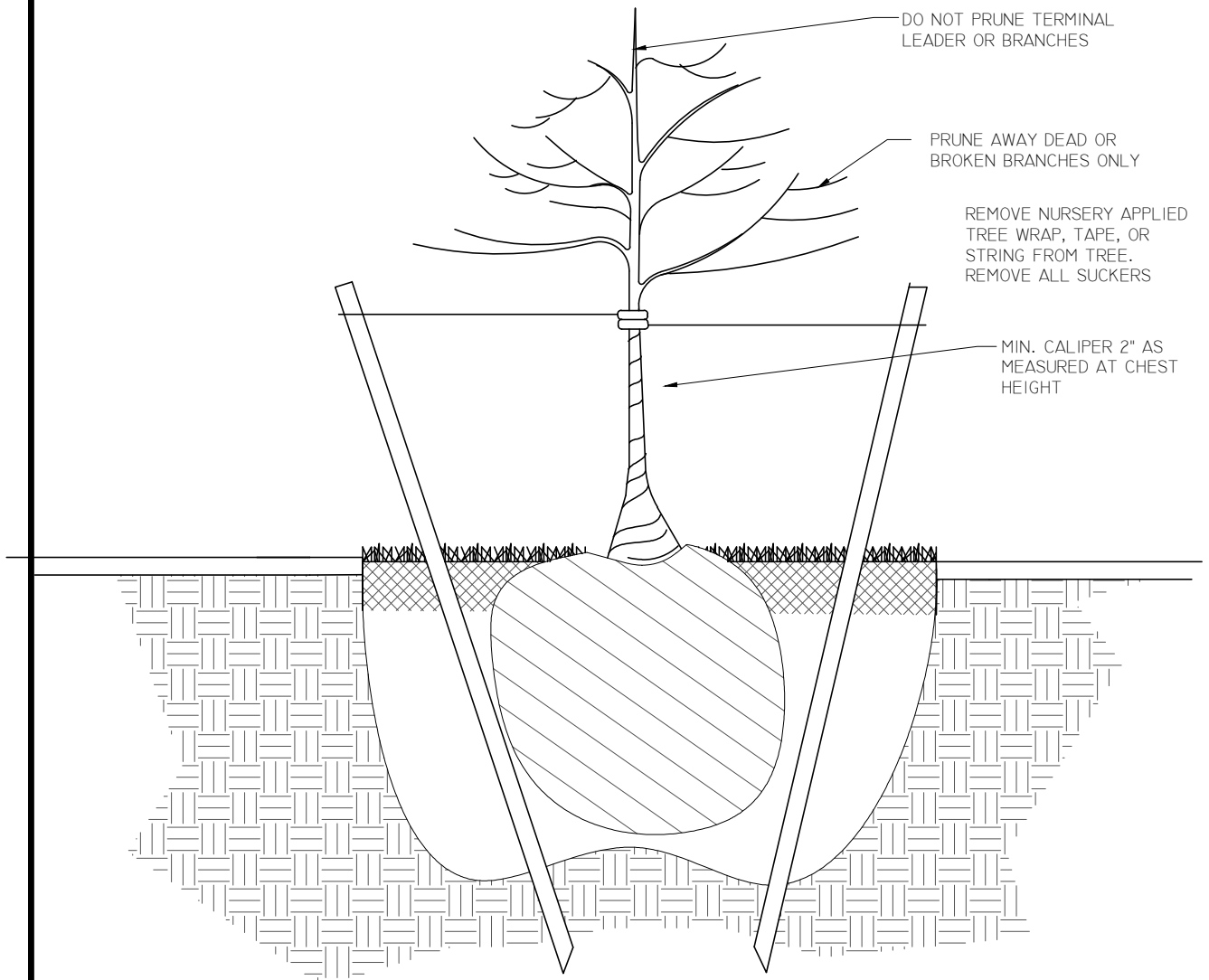
CASE II

CITY OF WYOMING
ENGINEERING DEPARTMENT

**SIDEWALK
RAMP TYPE II**

DRAWN BY - KJM
CHECKED BY - JJO
DATE DRAWN - 3-2021
DATE REVISED - 3-2021

I-30E



NOTE: SET ROOTBALL LEVEL TO GRADE. UNTIE TWINE FROM TRUNK.
 REMOVE ALL NON-BIODEGRADABLE MATERIAL. FOLD DOWN TOP $\frac{1}{3}$
 OF BURLAP. CUT AND REMOVE BASKET.

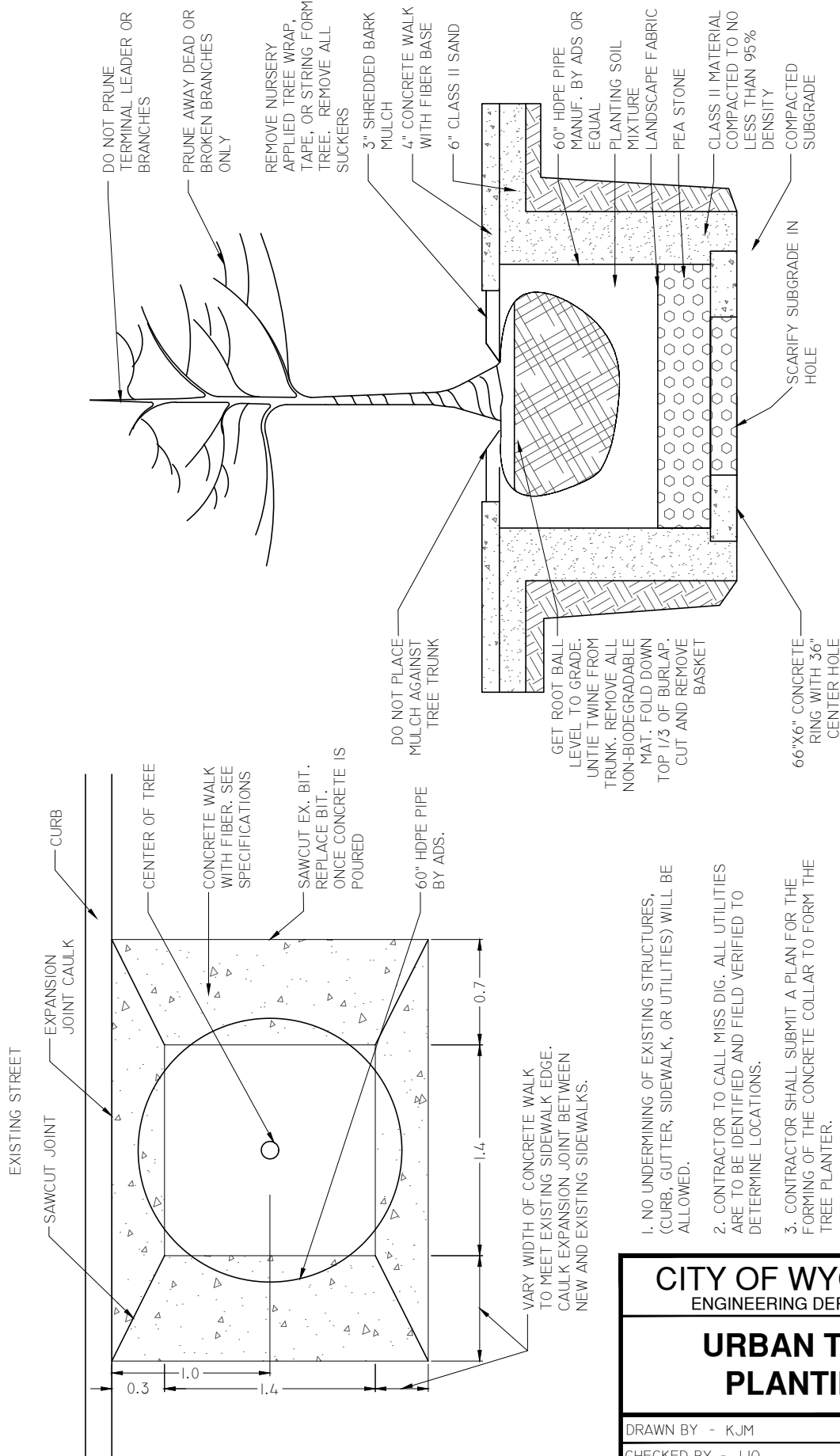
TREE PLANTING DETAIL

CITY OF WYOMING
 ENGINEERING DEPARTMENT

TREE PLANTING DETAIL

DRAWN BY - KJM
 CHECKED BY - JJO
 DATE DRAWN - 3-2021
 DATE REVISED - 3-2021

I-32A



1. NO UNDERMINING OF EXISTING STRUCTURES, (CURB, GUTTER, SIDEWALK, OR UTILITIES) WILL BE ALLOWED.
2. CONTRACTOR TO CALL MISS DIG. ALL UTILITIES ARE TO BE IDENTIFIED AND FIELD VERIFIED TO DETERMINE LOCATIONS.
3. CONTRACTOR SHALL SUBMIT A PLAN FOR THE FORMING OF THE CONCRETE COLLAR TO FORM THE TREE PLANTER.

URBAN TREE PLANTING

CITY OF WYOMING
ENGINEERING DEPARTMENT

URBAN TREE PLANTING

DRAWN BY - KJM

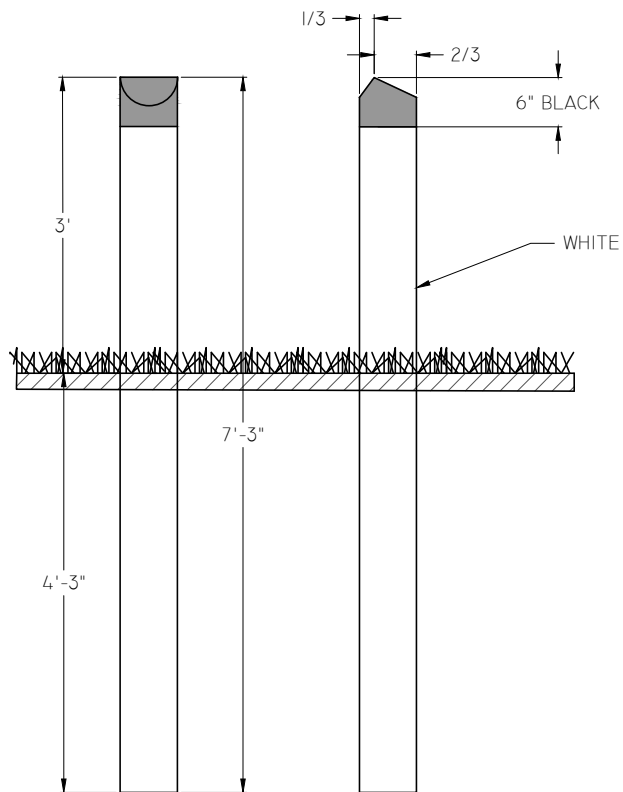
CHECKED BY - JJO

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

I-32B

7 TREATED WOOD GUARD POSTS, EQUALLY SPACED, SHALL BE PLACED AT THE ENDS OF ALL TEMPORARY STREETS



ALL POSTS SHALL BE A MINIMUM OF 7 $\frac{1}{2}$ " IN DIMENSION

ALL POSTS SHALL BE TREATED IN ACCORDANCE WITH THE CURRENT
M.D.O.T. STD. SPECIFICATIONS

WOOD GUARD POST

CITY OF WYOMING
ENGINEERING DEPARTMENT
**GUARD POST DETAIL
FOR TEMPORARY
STREETS**

DRAWN BY - AR

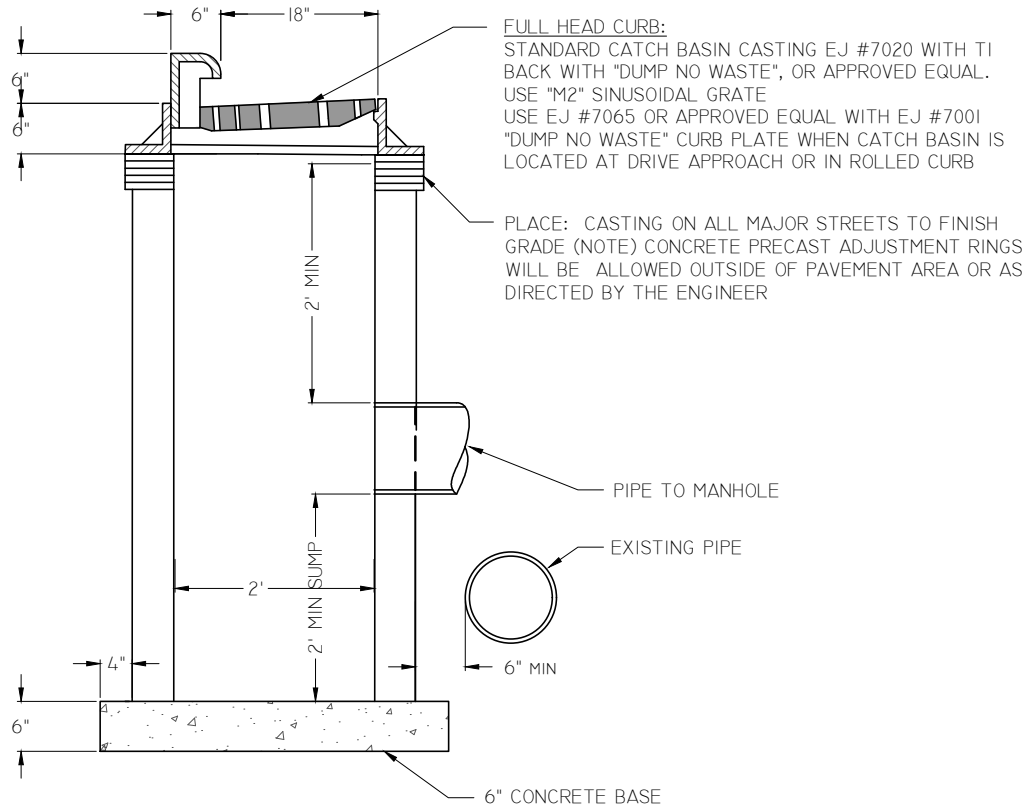
CHECKED BY - RH

DATE DRAWN - 2-06-2007

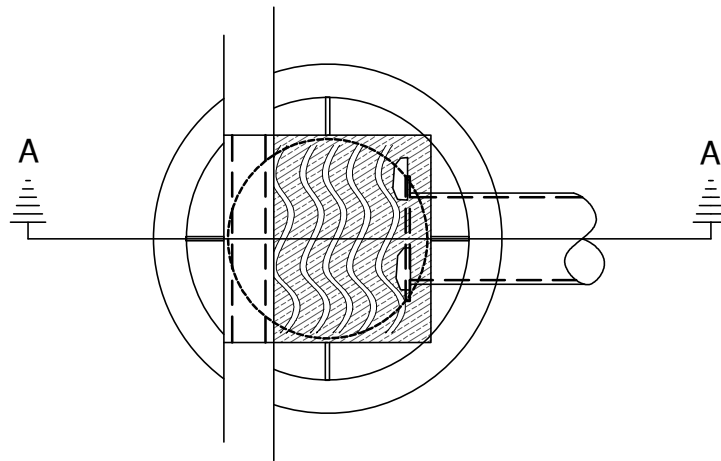
DATE REVISED - 3-2021

I-33





SECTION A-A



TOP VIEW

STANDARD MINI CATCH BASIN

NOTE:

FOR USE WHERE AN EXISTING UTILITY WHICH CANNOT BE RELOCATED
 INTERFERES WITH STANDARD 4' DIAMETER CATCH BASIN

STRUCTURE SHALL BE PRE-CAST REINFORCED CONCRETE UNLESS OTHERWISE
 APPROVED BY THE ENGINEER

CITY OF WYOMING
 ENGINEERING DEPARTMENT

**STANDARD MINI
 CATCH BASIN**

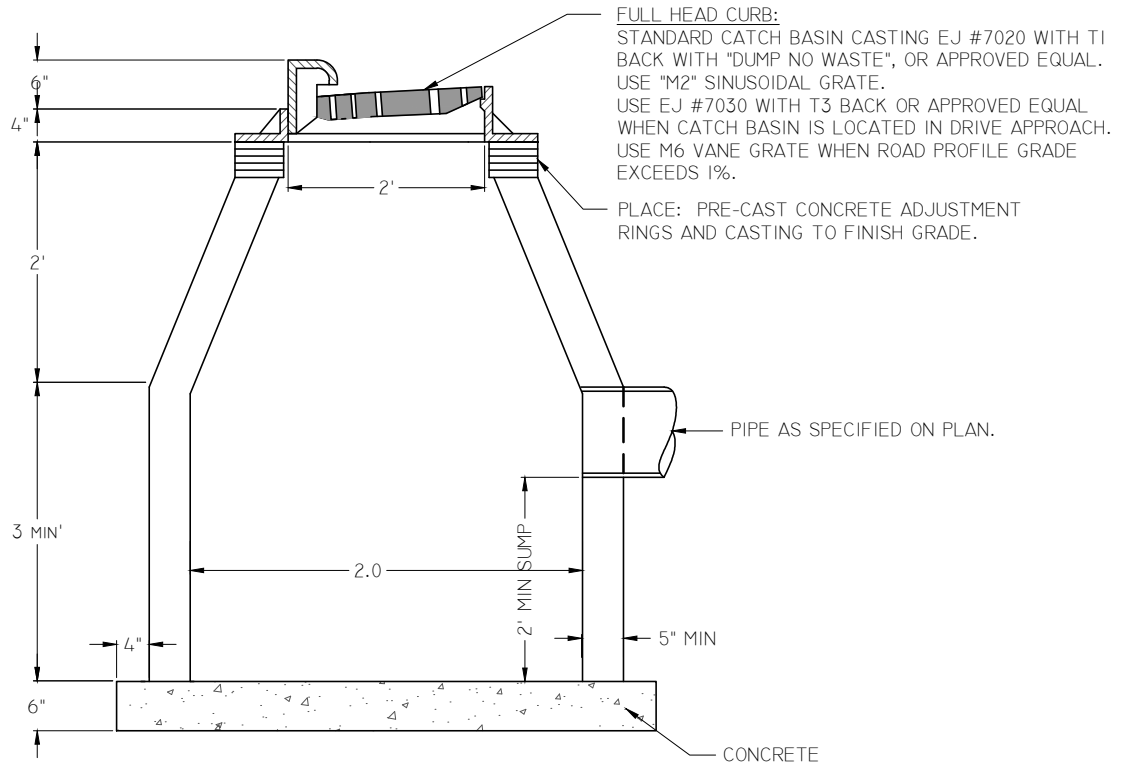
DRAWN BY - KJM

CHECKED BY - JJJ

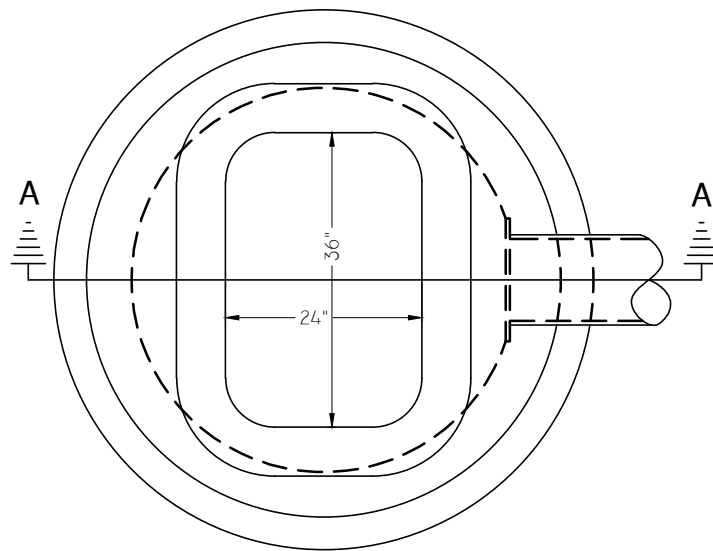
DATE DRAWN - 3-2021

DATE REVISED - 3-2021

S-3



SECTION A-A



TOP VIEW

STANDARD DOUBLE CATCH BASIN

NOTE:

STRUCTURE SHALL BE PRE-CAST REINFORCED CONCRETE UNLESS OTHERWISE APPROVED BY THE ENGINEER

CITY OF WYOMING
ENGINEERING DEPARTMENT

**STANDARD DOUBLE
CATCH BASIN**

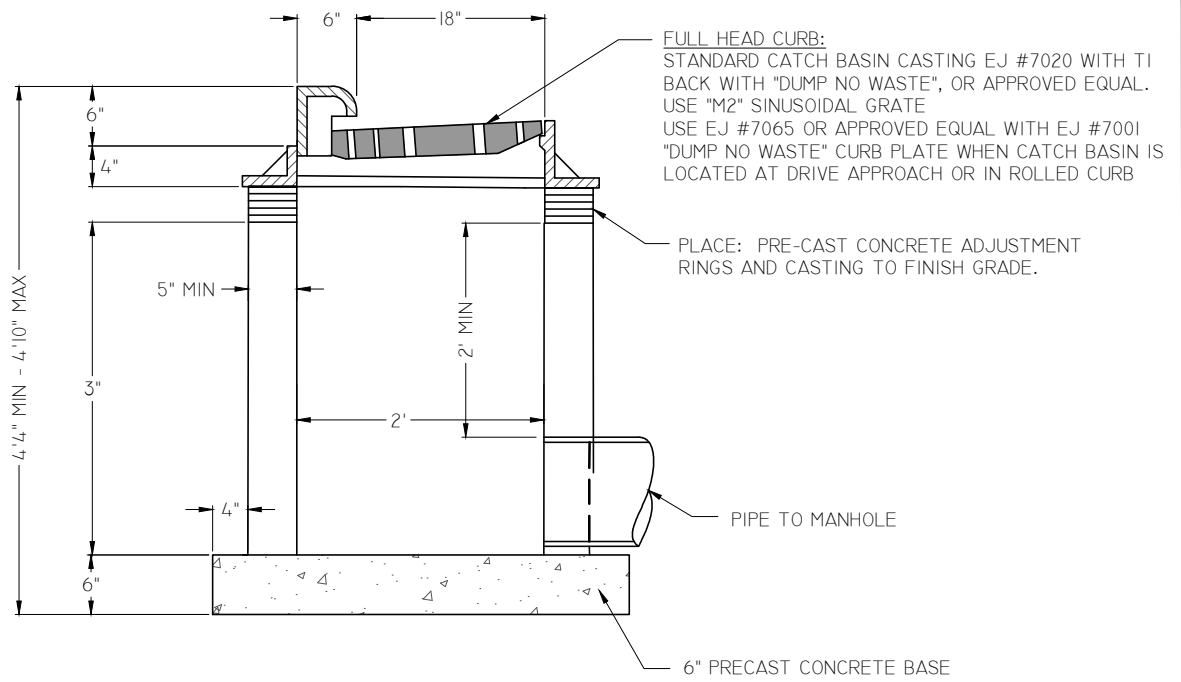
DRAWN BY - KJM

CHECKED BY - JJO

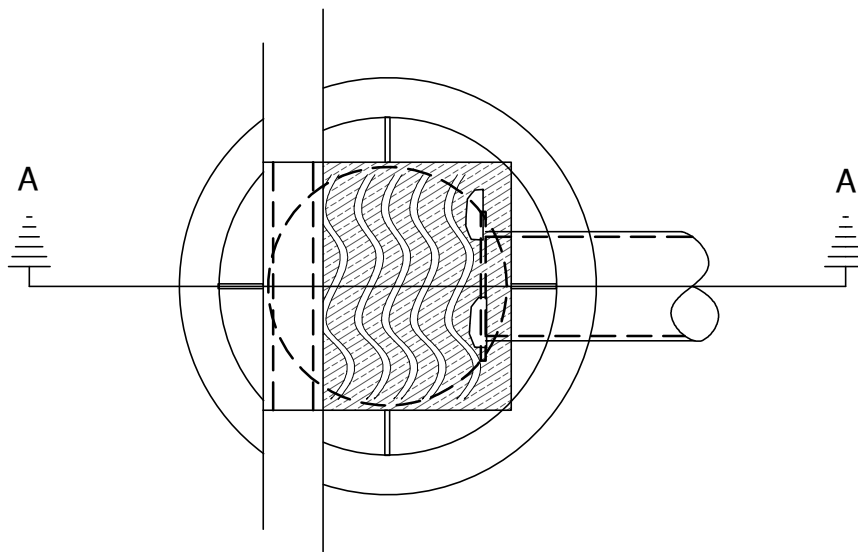
DATE DRAWN - 3-2021

DATE REVISED - 3-2021

S-4



SECTION A-A



TOP VIEW

2' STANDARD DROP INLET

CITY OF WYOMING
ENGINEERING DEPARTMENT

**2' STANDARD
DROP INLET**

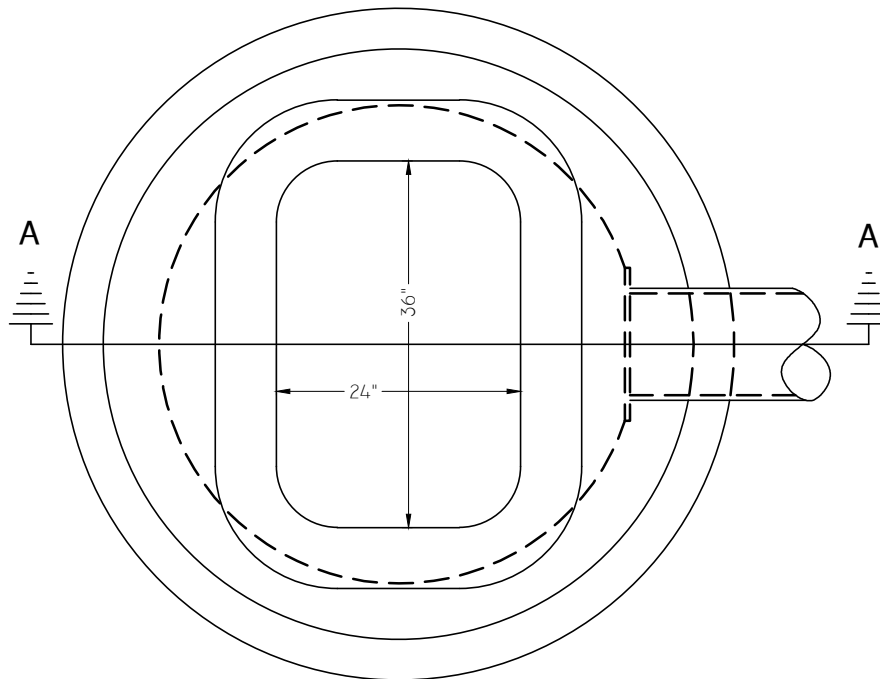
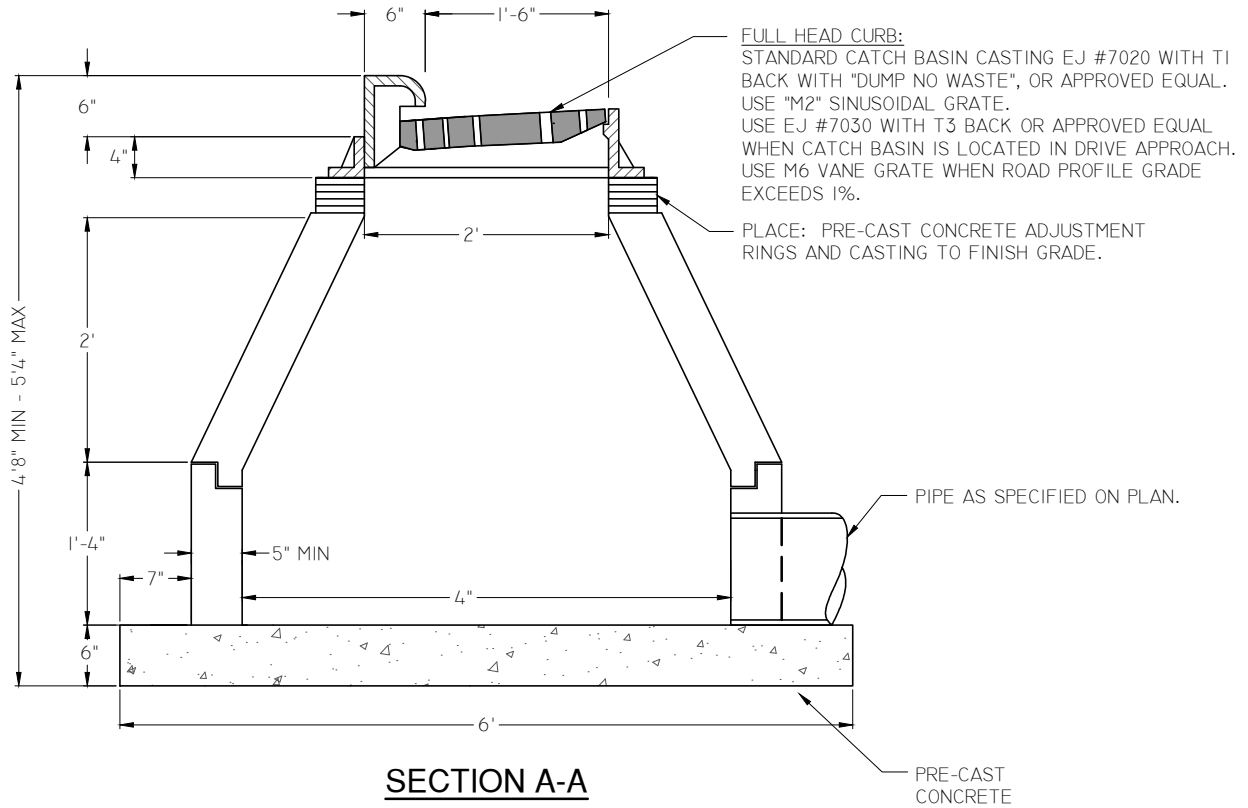
DRAWN BY - KJM

CHECKED BY - JJO

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

S-5A



4' STANDARD DROP INLET

CITY OF WYOMING
 ENGINEERING DEPARTMENT

**4' STANDARD
 DROP INLET**

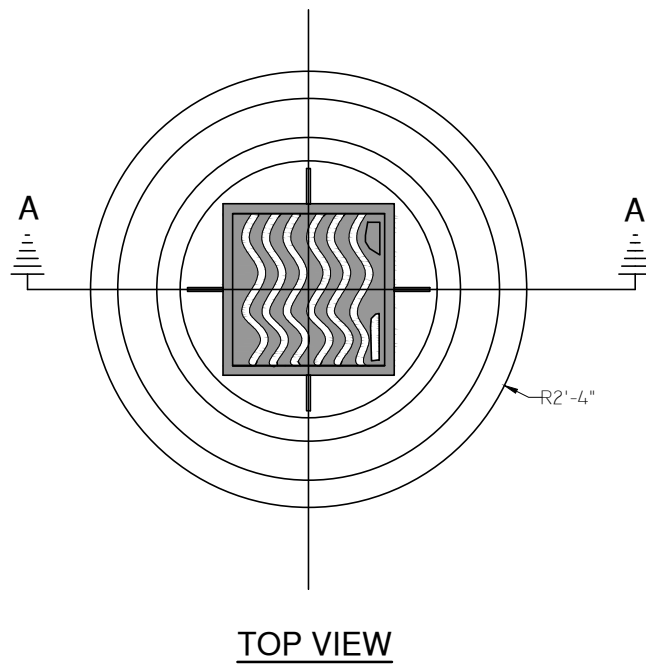
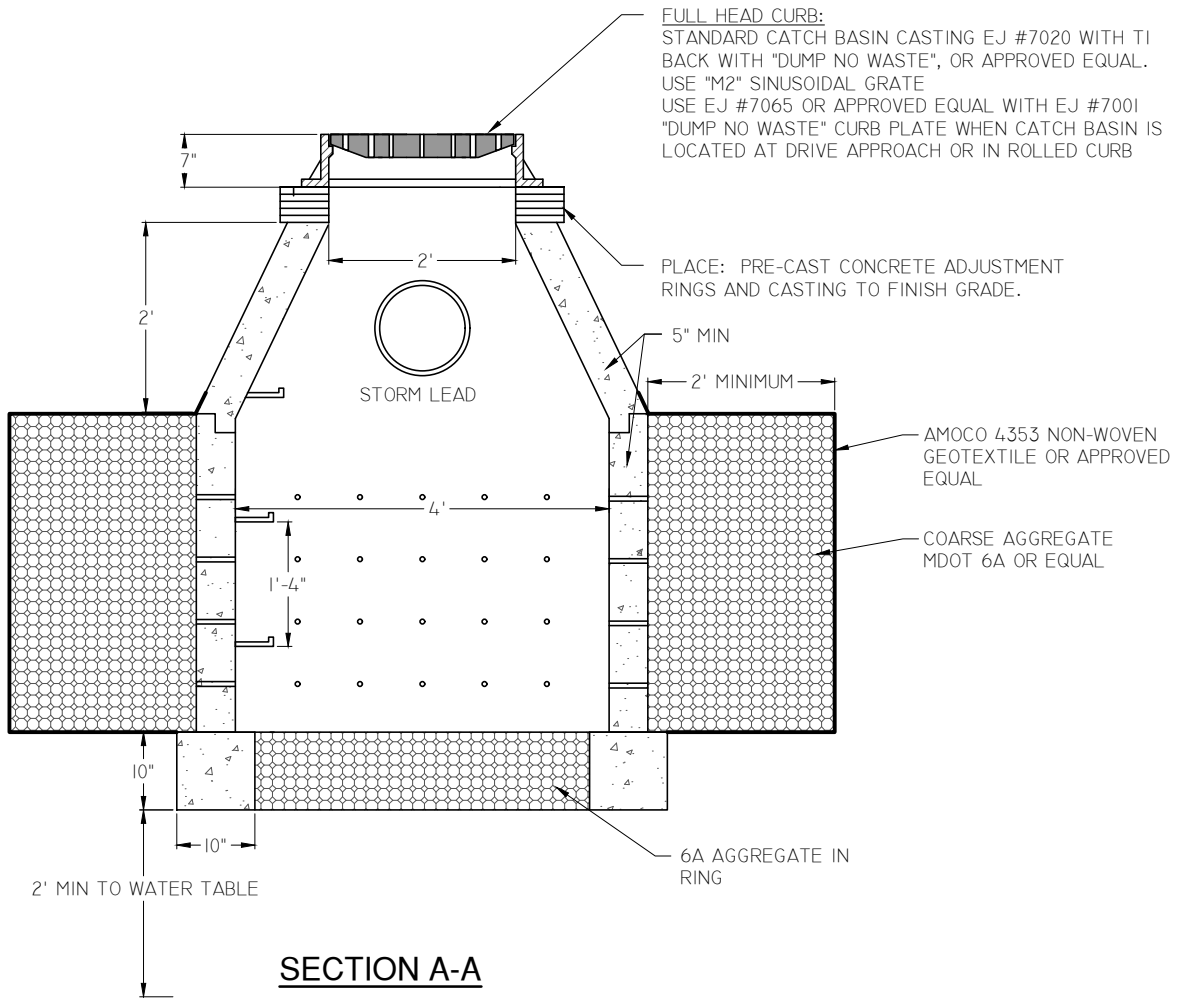
DRAWN BY - KJM

CHECKED BY - JJ0

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

S-5B



NOTE:

STRUCTURE SHALL BE PRE-CAST REINFORCED CONCRETE UNLESS
OTHERWISE APPROVED BY THE ENGINEER

STANDARD LEECHING BASIN

CITY OF WYOMING
ENGINEERING DEPARTMENT

**STANDARD LEECHING
BASIN**

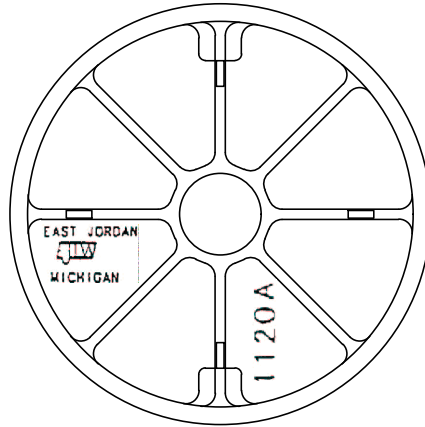
DRAWN BY - KJM

CHECKED BY - JJO

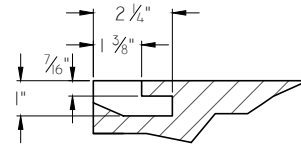
DATE DRAWN - 3-2021

DATE REVISED - 3-2021

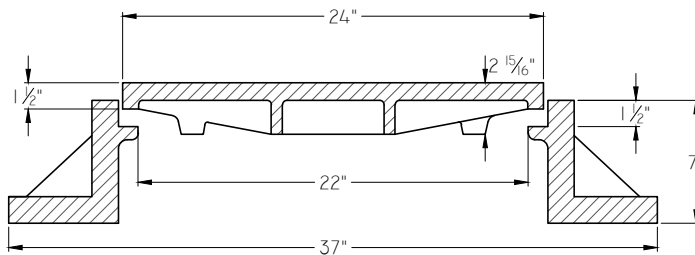
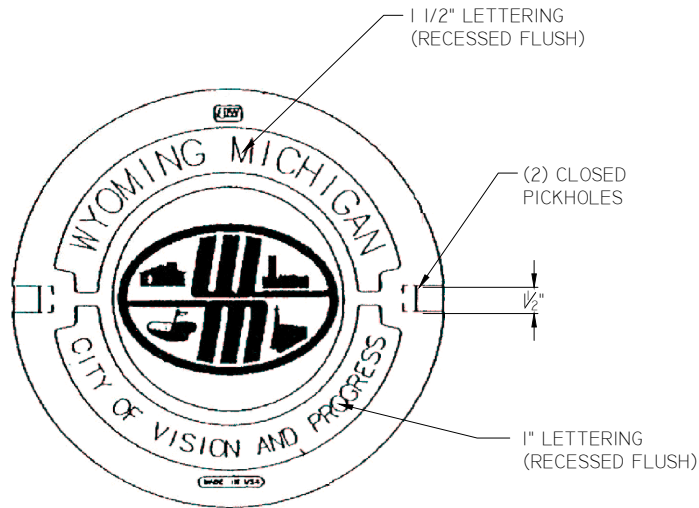
S-5C



BOTTOM VIEW



PICKHOLE DETAIL



CASTING AND COVER SECTION

EAST JORDAN 1040 OR APPROVED
EQUAL HEAVY DUTY

TYPE "C" 2 HOLE VENT COVER
TOTAL WEIGHT 375#

LEGACY WYOMING STANDARD MANHOLE COVER AND FLANGE BASE
(NO LONGER USED)

CITY OF WYOMING
ENGINEERING DEPARTMENT

**LEGACY WYOMING
STD. MANHOLE COVER
AND FLANGE**

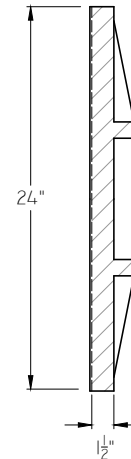
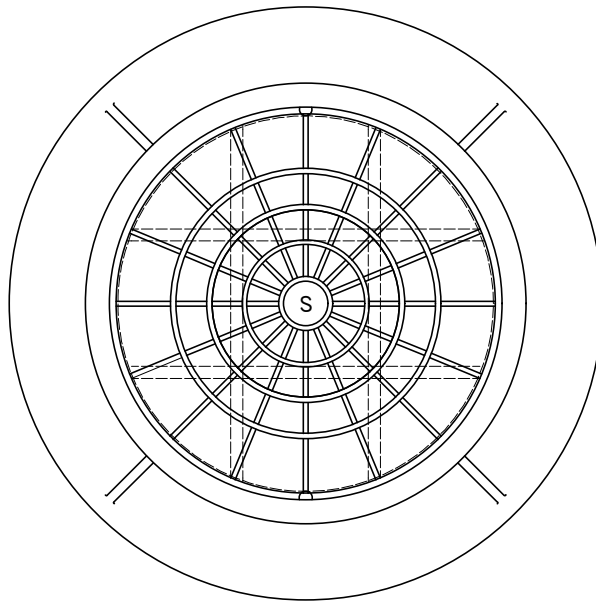
DRAWN BY - KJM

CHECKED BY - JJ0

DATE DRAWN - 3-2021

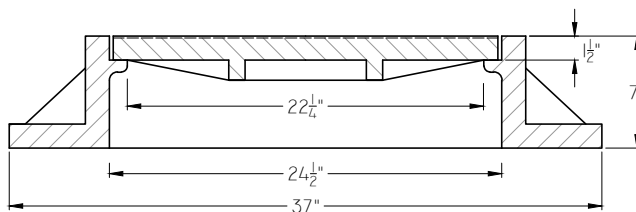
DATE REVISED - 3-2021

S-6



EAST JORDAN 1040 C OR APPROVED EQUAL
HEAVY DUTY

TYPE "C", 2 HOLE VENT COVER
TOTAL WEIGHT 350#



NOTE: SPECIFY WHEN ORDERING WHETHER LETTERS
"S" OR "W" ARE TO BE CAST ON COVERS.

LEGACY STANDARD MANHOLE COVER AND FLANGE BASE
(NO LONGER USED)

CITY OF WYOMING
ENGINEERING DEPARTMENT

**LEGACY STD.
MANHOLE COVER AND
FLANGE**

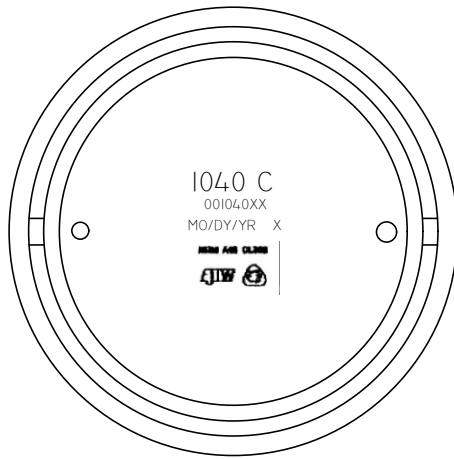
DRAWN BY - KJM

CHECKED BY - JJ0

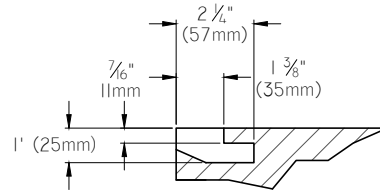
DATE DRAWN - 3-2021

DATE REVISED - 3-2021

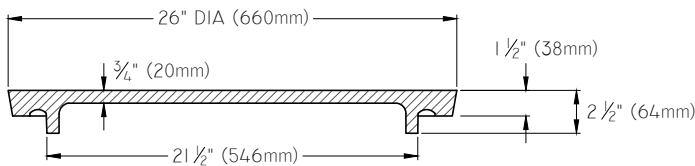
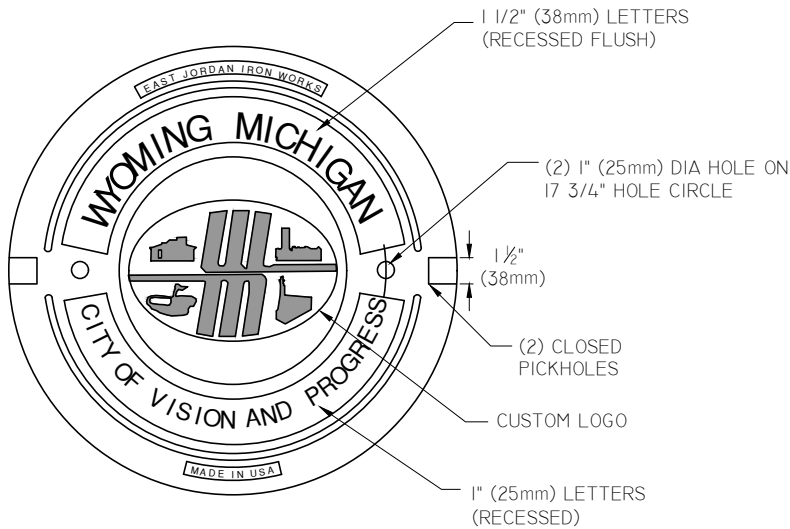
S-6A



BOTTOM VIEW



PICKHOLE DETAIL



CROSS SECTION

WYOMING STANDARD MANHOLE COVER AND FLANGE BASE

CITY OF WYOMING
ENGINEERING DEPARTMENT

**WYOMING STD.
MANHOLE COVER AND
FLANGE**

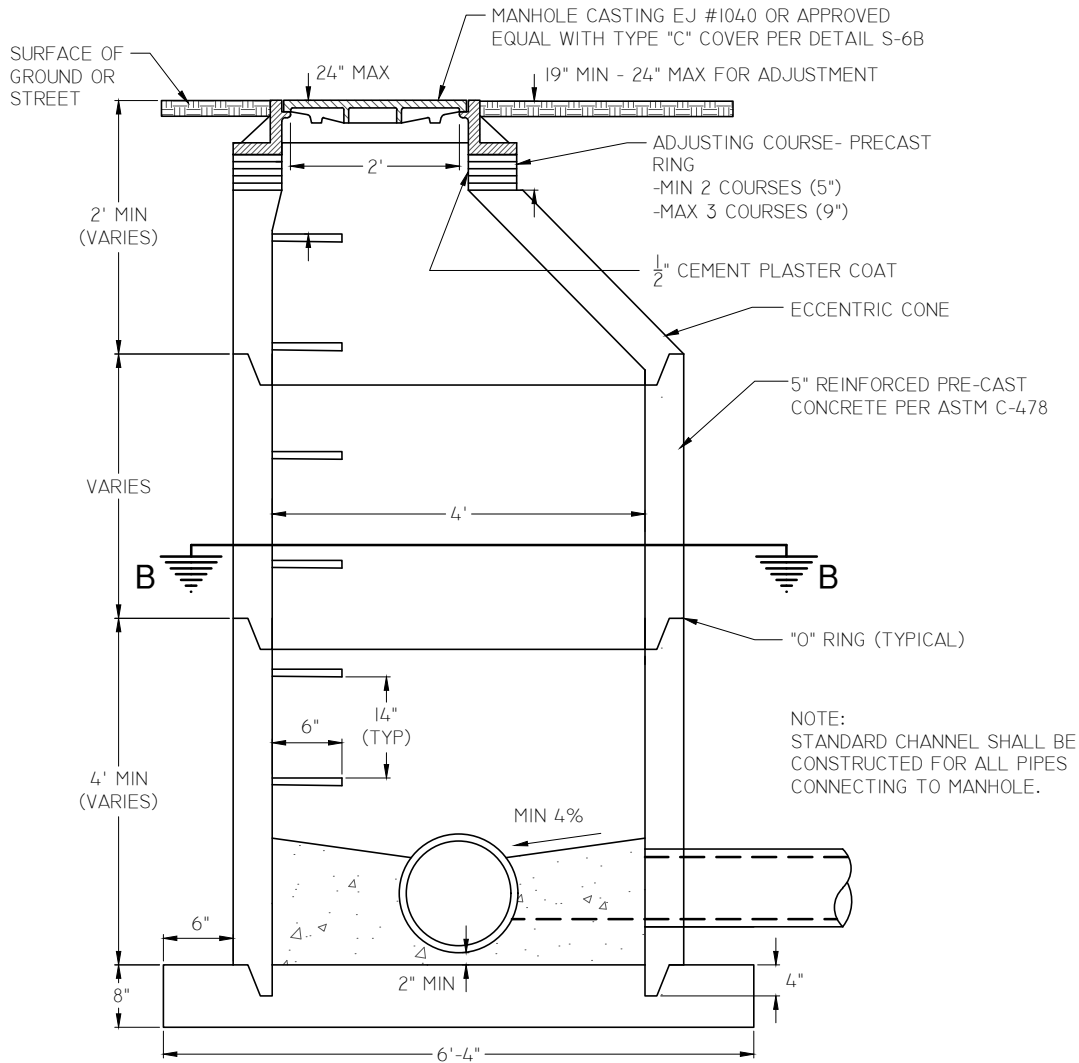
DRAWN BY - KJM

CHECKED BY - JJO

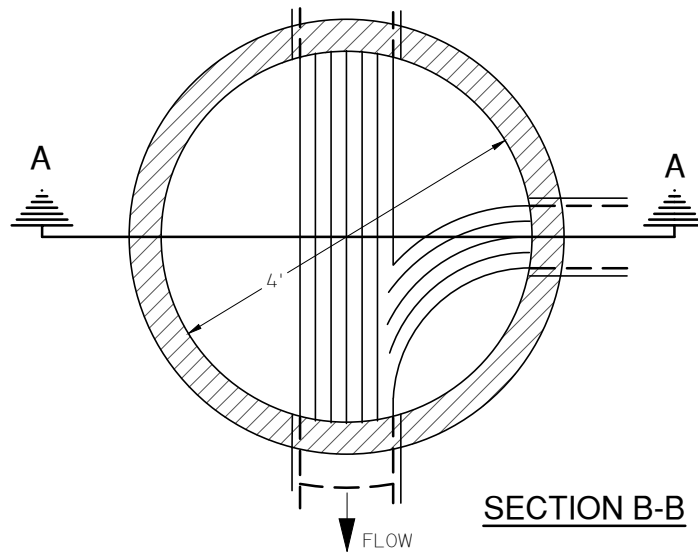
DATE DRAWN - 3-2021

DATE REVISED - 3-2021

S-6B



SECTION A-A



SECTION B-B

(IN HIGH WATER TABLE AREAS AN APPROVED WATERPROOFING SHALL BE APPLIED TO THE OUTSIDE OF THE MANHOLE)

NOTE:

- WHERE SEWER PIPE IS JOINED INTO MH, USE FLEXIBLE WATER TIGHT CONNECTION SUCH AS A-LOK, KORNSEAL OR APPROVED EQUAL
- BELOW 15' DEPTH MEASURED FROM PRESENT GROUND SURFACE, MANHOLE WALLS SHALL BE 12" THICK AND DIAMETER OF BASE 7'4"

CITY OF WYOMING
ENGINEERING DEPARTMENT

**PRE-CAST SANITARY
SEWER MANHOLE**

DRAWN BY - KJM

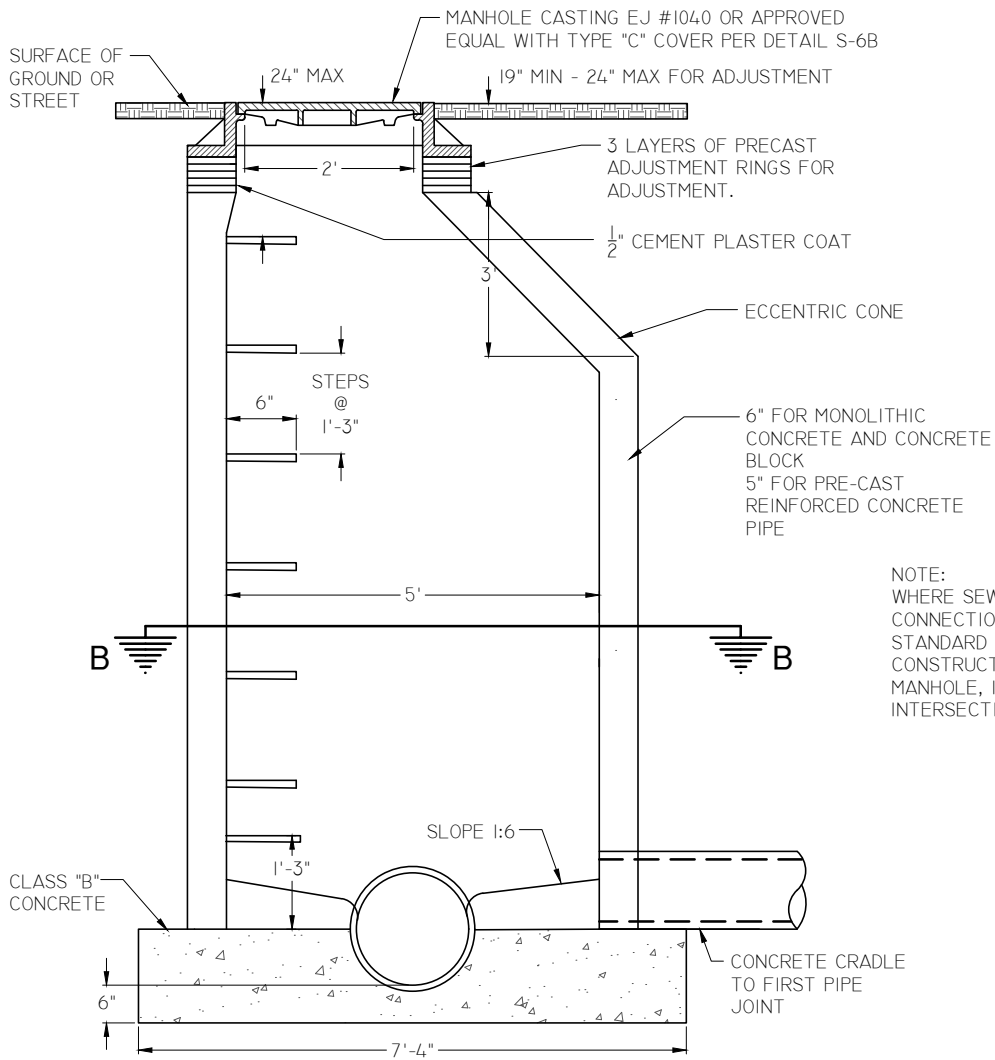
CHECKED BY - JJO

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

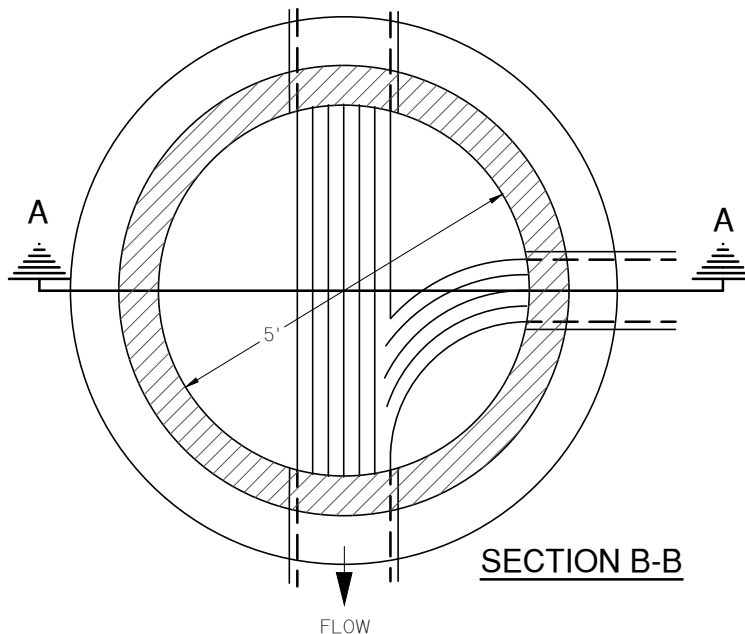
S-7

PRECAST SANITARY SEWER MANHOLE



NOTE:
WHERE SEWER STUBS OR HOUSE
CONNECTIONS ARE CALLED FOR,
STANDARD CHANNEL SHALL BE
CONSTRUCTED IN BOTTOM OF
MANHOLE, IN SAME MANNER AS FOR
INTERSECTING SEWER.

SECTION A-A



NOTE:
STRUCTURE SHALL BE PRE-CAST
REINFORCED CONCRETE UNLESS
OTHERWISE APPROVED BY THE
ENGINEER.

NOTE:
BELOW 15' DEPTH MEASURED FOR
PRESENT GROUND SURFACE, MANHOLE
WALLS SHALL BE 12\"/>

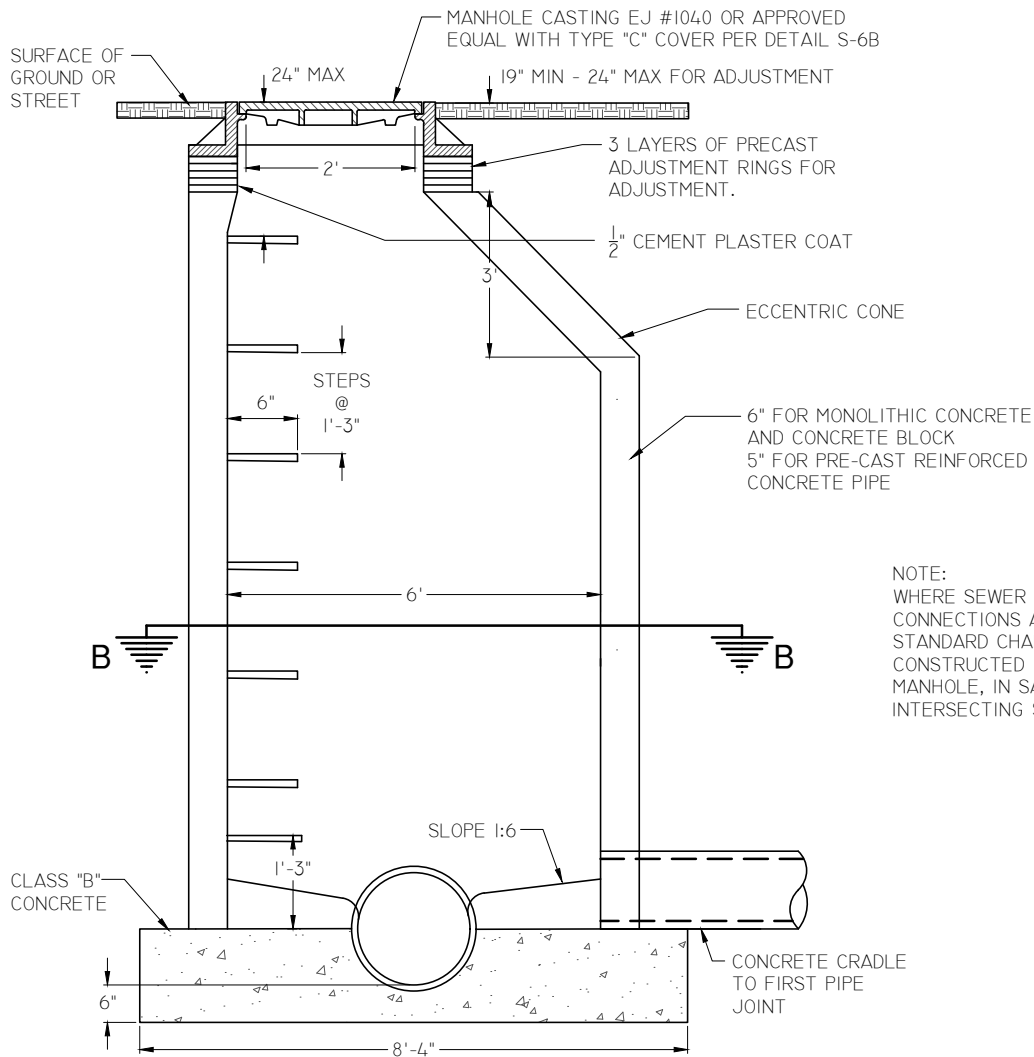
5' DRAINAGE STRUCTURE

CITY OF WYOMING
ENGINEERING DEPARTMENT

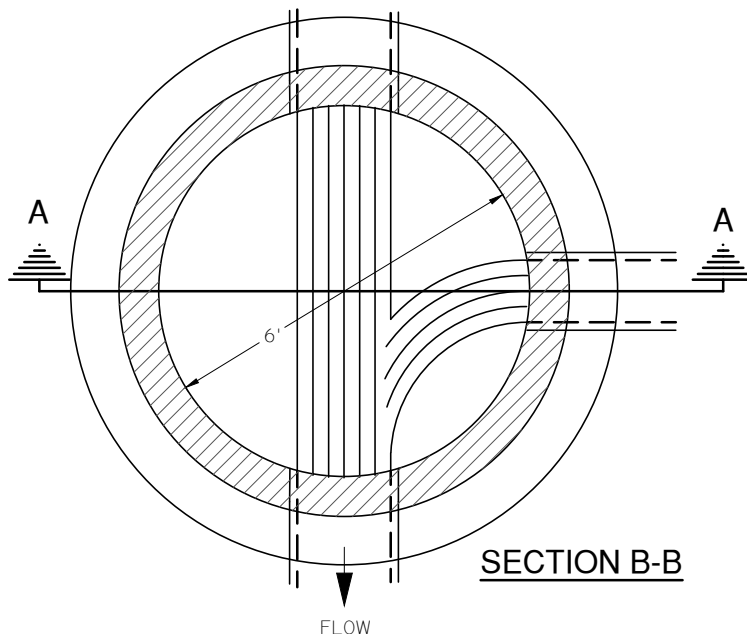
**5' DRAINAGE
STRUCTURE**

DRAWN BY - KJM
CHECKED BY - JJO
DATE DRAWN - 3-2021
DATE REVISED - 3-2021

S-7B



SECTION A-A



SECTION B-B

NOTE:
WHERE SEWER STUBS OR HOUSE CONNECTIONS ARE CALLED FOR, STANDARD CHANNEL SHALL BE CONSTRUCTED IN BOTTOM OF MANHOLE, IN SAME MANNER AS FOR INTERSECTING SEWER.

NOTE:
STRUCTURE SHALL BE PRE-CAST REINFORCED CONCRETE UNLESS OTHERWISE APPROVED BY THE ENGINEER.

NOTE:
BELOW 15' DEPTH MEASURED FOR PRESENT GROUND SURFACE, MANHOLE WALLS SHALL BE 12" THICK AND DIAMETER OF BASE 9'4"

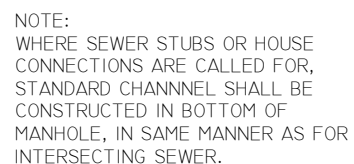
6' DRAINAGE STRUCTURE

CITY OF WYOMING
ENGINEERING DEPARTMENT

**6' DRAINAGE
STRUCTURE**

DRAWN BY - KJM
CHECKED BY - JJO
DATE DRAWN - 3-2021
DATE REVISED - 3-2021

S-7C



S-7D

7' DRAINAGE STRUCTURE

MANHOLE CASTING EJ #1040 OR APPROVED
EQUAL WITH TYPE "C" COVER PER DETAIL S-6B

2'-2"

STD. MH STEPS

4'

4'

PLACE 3 ROWS OF PRECAST
ADJUSTMENT RINGS.

MANHOLE WALL THICKNESS 5" FOR
PRE-CAST REINFORCED CONCRETE
PIPE

NOTE: DOUBLE REINFORCING REQUIRED IN
TEE SECTION. DESIGN TO BE APPROVED BY
THE ENGINEER.

B

B

PRE-CAST TEE MANHOLE

6"

1'-3"

66" TO 78" DIA

6"

36" STORM

CLASS "B" CONCRETE

6"

EXTRA REINFORCING IN PIPE AROUND OPENING

8'

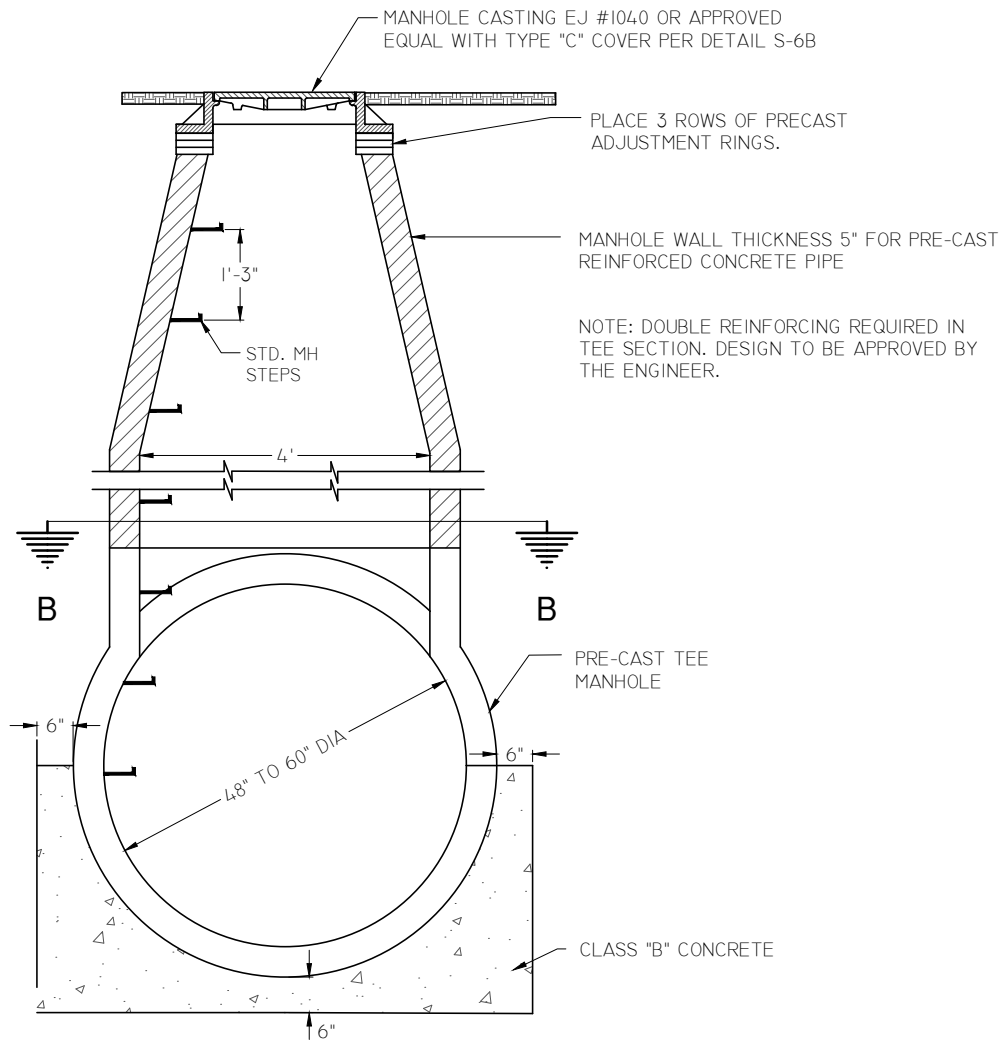
A

A

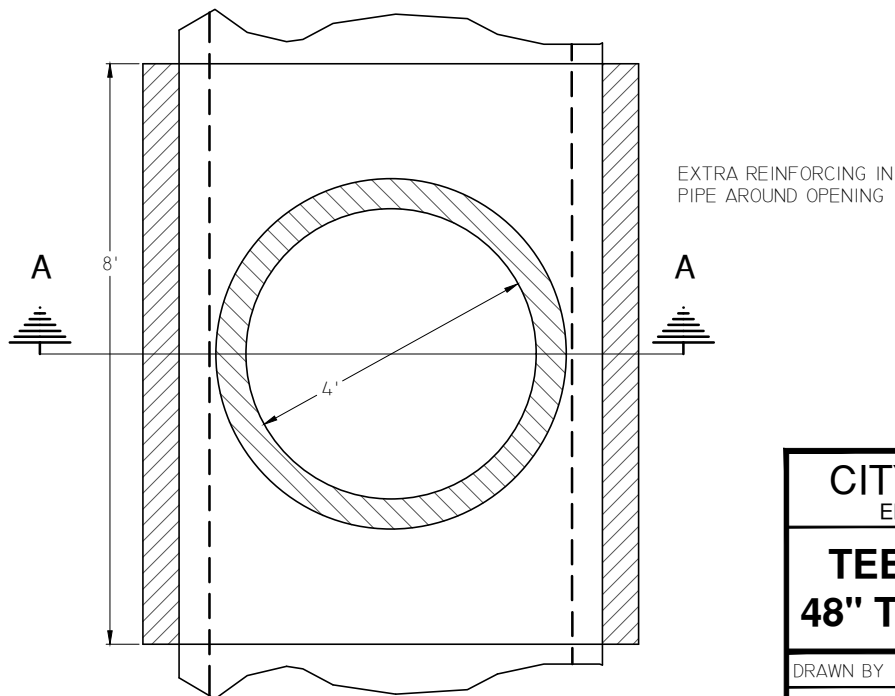
CITY OF WASHINGTON
ENGINEERING
**STANDARD
FOR LARGE
SEWER**

DRAWN BY K. J. M.

<p>CITY OF WYOMING ENGINEERING DEPARTMENT</p>	
<p>STANDARD MANHOLE FOR LARGE DIAMETER SEWER</p>	
<p>DRAWN BY - KJM</p>	<p>S-8</p>
<p>CHECKED BY - JJO</p>	
<p>DATE DRAWN - 3-2021</p>	
<p>DATE REVISED - 3-2021</p>	



SECTION A-A



SECTION B-B

TEE MANHOLE FOR 48" TO 60" DIA SEWER

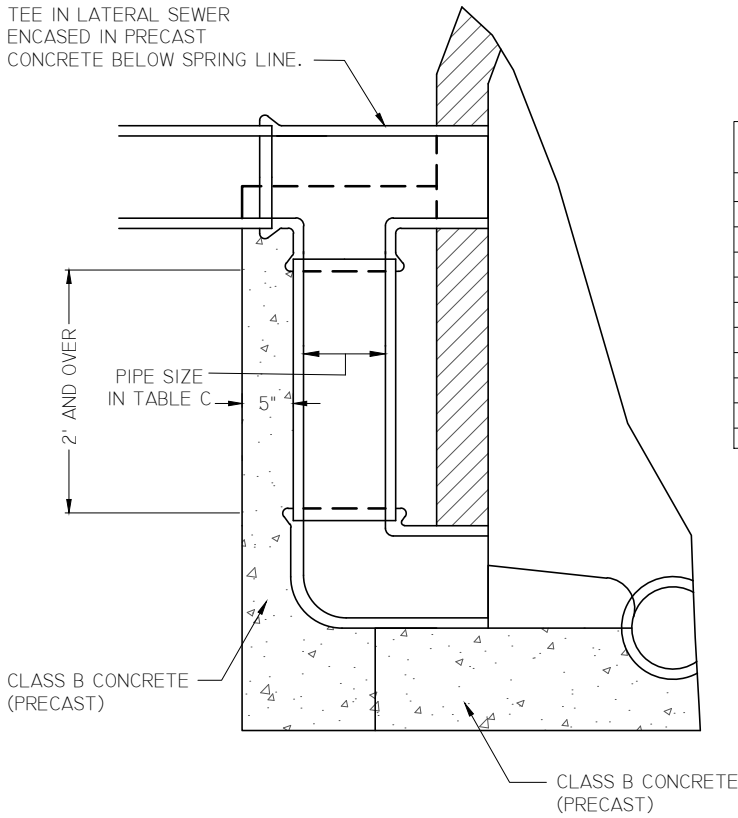
CITY OF WYOMING
ENGINEERING DEPARTMENT

**TEE MANHOLE FOR
48" TO 60" DIA SEWER**

DRAWN BY - KJM
CHECKED BY - JJO
DATE DRAWN - 3-2021
DATE REVISED - 3-2021

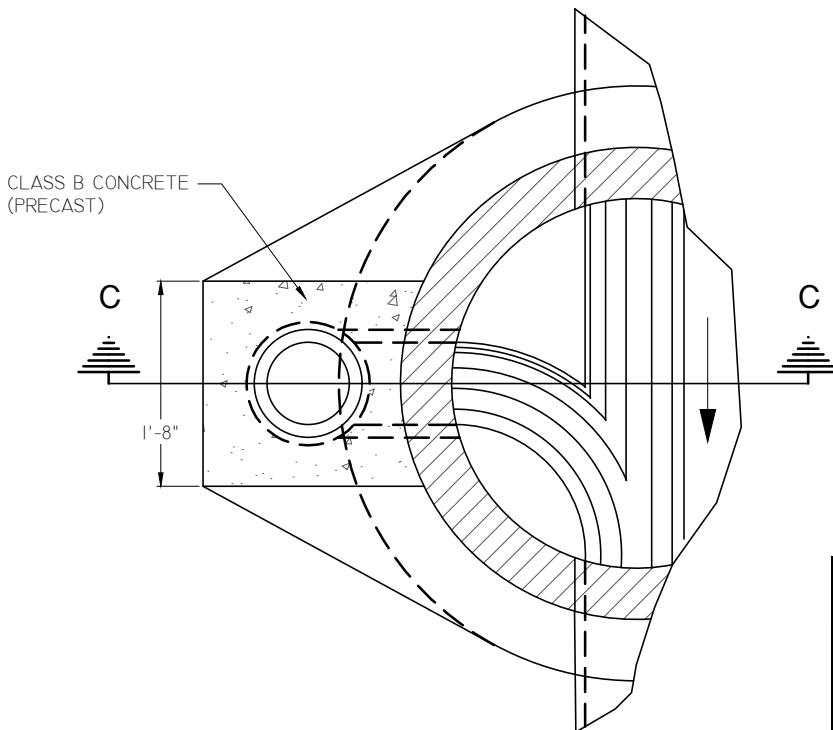
S-9

PIPE SIZE IN TABLE C
TEE IN LATERAL SEWER
ENCASED IN PRECAST
CONCRETE BELOW SPRING LINE.



SECTION C-C

TABLE C	
SIZE OF SEWER	DROP CONNECTION
8"	8"
10"	8"
12"	8"
15"	10"
18"	10"
21"	12"
24"	12"
27"	12"
30"	15"
36"	15"



SECTIONAL PLAN

STANDARD DROP CONNECTION

CITY OF WYOMING
ENGINEERING DEPARTMENT

**STANDARD DROP
CONNECTION**

DRAWN BY - KJM

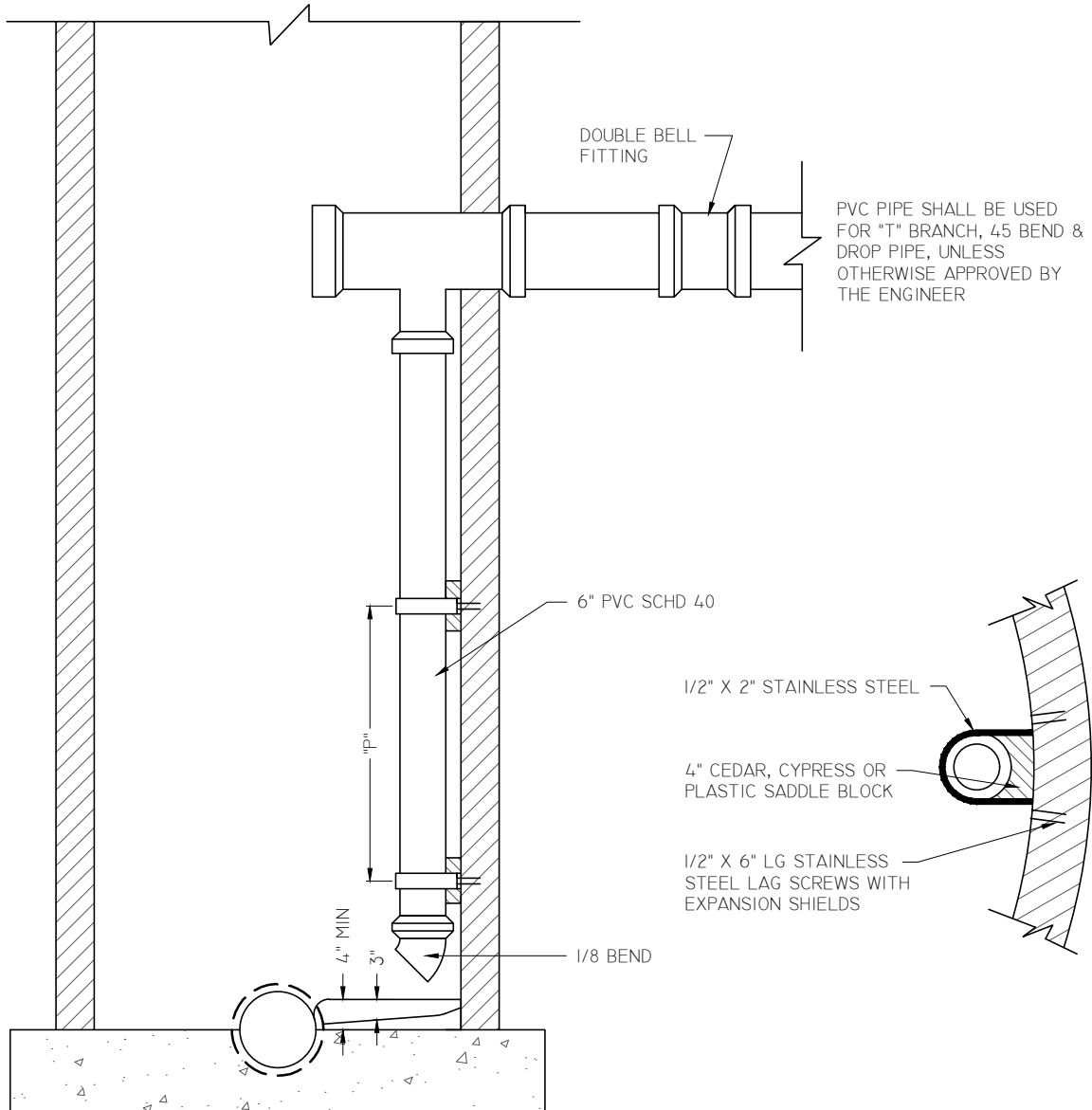
CHECKED BY - JJO

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

S-11

DIAMETER OF SEWER	SIZE OF T BRANCH
8"	8" x 6"
6"	6" x 6"



INSIDE DROP CONNECTION

SEWERS MINIMUM DROP = 3'-6"

P=5' MAX. SPACING WITH AT LEAST 3 STRAPS USED FOR EACH INSTALLATION.

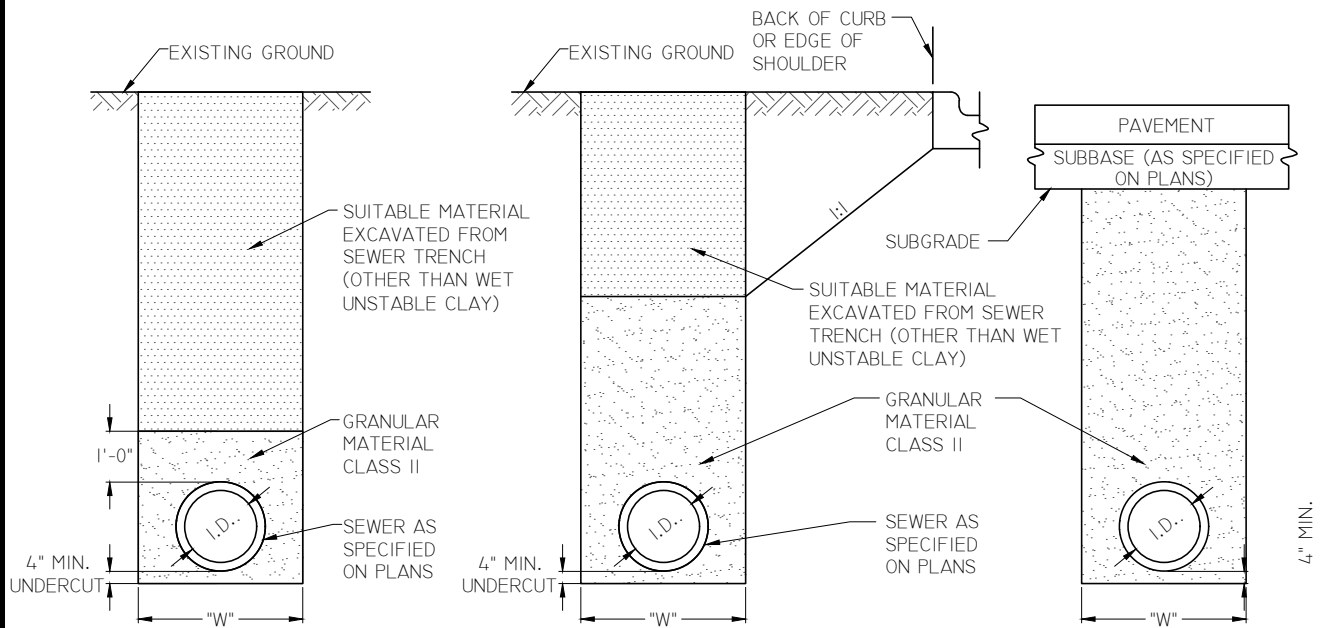
THE FORMING OF A CHANNEL IN THE BENCH OF AN EXISTING MANHOLE WILL BE REQUIRED UNLESS APPROVED BY THE ENGINEER.
THE FORMING OF ANY CHANNEL MUST BE MADE AS DIRECTED BY THE ENGINEER.

CITY OF WYOMING
ENGINEERING DEPARTMENT

INSIDE DROP CONNECTION

DRAWN BY - KJM
CHECKED BY - JJO
DATE DRAWN - 3-2021
DATE REVISED - 3-2021

S-12



SEWER NOT UNDER ROADBED

SEWER UNDER ROADBED OR WITH INFLUENCE OF ROADBED

SUFFICIENT TRENCH WIDTH SHALL BE PROVIDED TO ALLOW FREE WORKING SPACE AND TO PERMIT COMPACTING THE BACKFILL AROUND THE PIPE.

THE FOLLOWING ARE MINIMUM TRENCH WIDTHS:

I.D. PIPE SIZE (INCHES)	LESS THAN 18	21	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108
"W" TRENCH WIDTH (FEET)	3.0	3.5	4.0	5.0	6.0	7.0	8.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0

NOTES:

BACKFILL FOR UTILITY TRENCHES ABOVE GRANULAR MATERIAL CLASS II SHALL BE PLACED AS FOLLOWS:

- GRANULAR MATERIAL OF THE CLASS SPECIFIED ON DETAILS. SHALL BE USED TO BACKFILL TRENCHES UNDER THE ROADBED AND SHALL BE COMPACTED TO NOT LESS THAN 95% OF ITS MAXIMUM UNIT WEIGHT.
- GRANULAR MATERIAL. OF THE CLASS SPECIFIED ON DETAILS. SHALL BE USED TO BACKFILL UTILITY TRENCHES OUTSIDE THE ROADBED BUT WITHIN THE 1:1 ZONE OF INFLUENCE SHOWN. IT WILL ALSO BE USED AS BACKFILL UNDER SIDEWALKS, SURFACED AREAS, AND MISCELLANEOUS STRUCTURES, AND COMPACTED TO NOT LESS THAN 95% OF ITS MAXIMUM UNIT WEIGHT.
- WHEN ACCEPTABLE, MATERIAL EXCAVATED FROM THE UTILITY TRENCHES SHALL BE USED TO BACKFILL UTILITY TRENCHES OUTSIDE THE LIMITS OF THE 1:1 ZONE OF INFLUENCE AND SHALL BE COMPACTED TO NOT LESS THEN 90% OF ITS MAXIMUM UNIT WEIGHT.

CITY OF WYOMING
ENGINEERING DEPARTMENT

BEDDING FOR PIPES

DRAWN BY - KJM

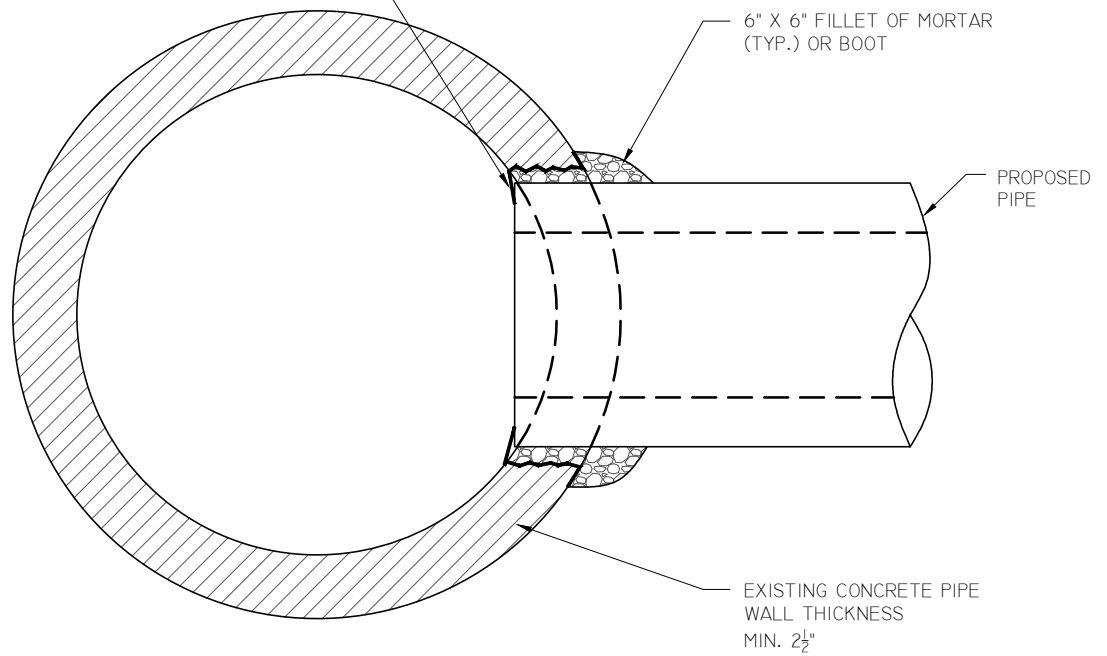
CHECKED BY - JJO

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

S-13

NOTE:
PROPOSED PIPE SHALL NOT EXTEND
BEYOND EXISTING PIPE INSIDE WALL.



SECTION

NOTE: SIZE OF TAP EQUALS
PROPOSED PIPE SIZE

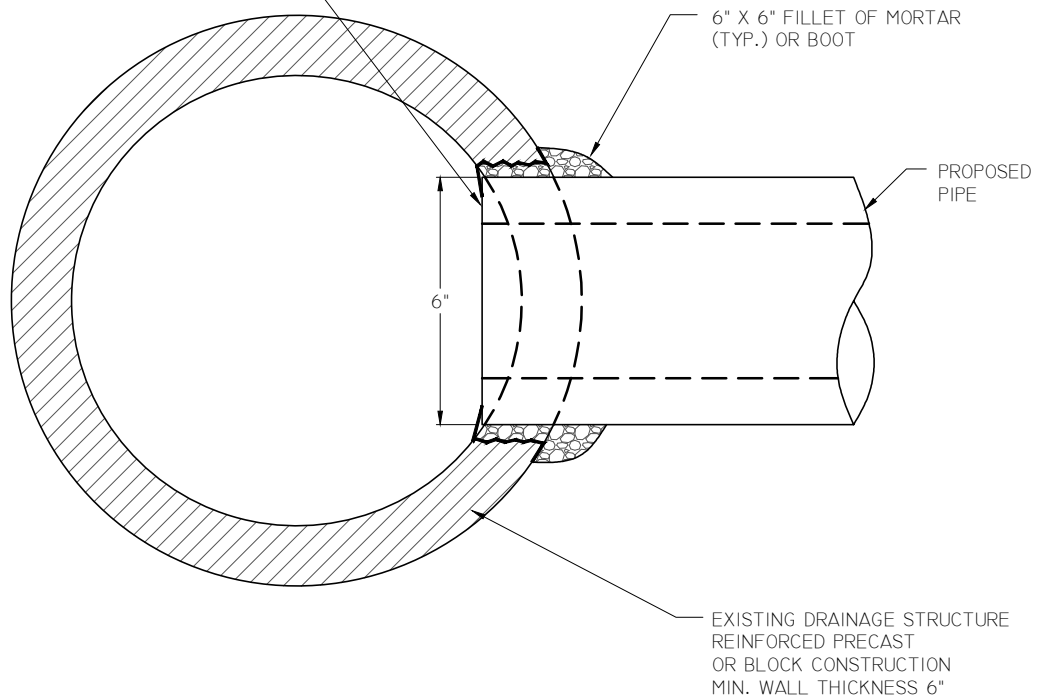
CITY OF WYOMING
ENGINEERING DEPARTMENT

STORM SEWER TAP

DRAWN BY - KJM
CHECKED BY - JJO
DATE DRAWN - 3-2021
DATE REVISED - 3-2021

S-14A

NOTE:
PROPOSED PIPE SHALL NOT EXTEND
BEYOND 6" OF EXISTING INSIDE WALL
OF DRAINAGE STRUCTURE.



PLAN

NOTE: ALL RECHANNELING REQUIRED
INSIDE OF DRAINAGE STRUCTURE
WILL BE INCLUDED IN UNIT PRICE
BID FOR SEWER CUT-INS.

CITY OF WYOMING
ENGINEERING DEPARTMENT

**DRAINAGE STRUCTURE
(STORM SEWER
CUT-IN)**

DRAWN BY - KJM

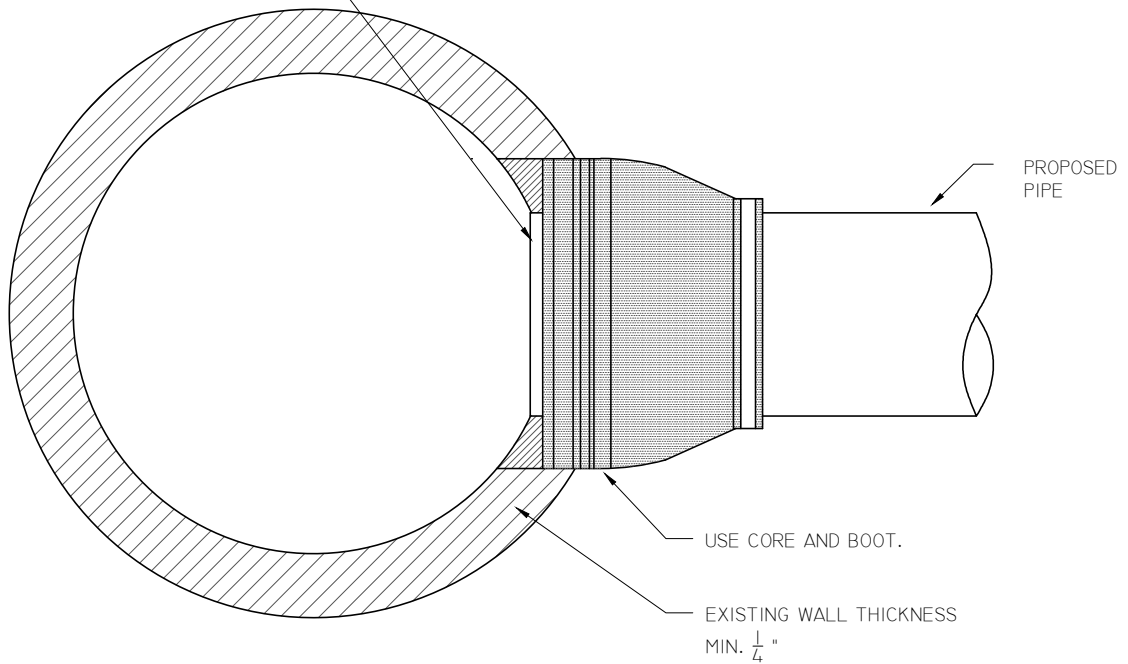
CHECKED BY - JJO

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

S-14B

NOTE:
PROPOSED PIPE SHALL NOT
EXTEND BEYOND EXISTING PIPE
INSIDE WALL.



SECTION

NOTE: SIZE OF TAP SHOULD BE OF
ADEQUATE SIZE FOR CORE OR CUT IN
SADDLE

CITY OF WYOMING
ENGINEERING DEPARTMENT

SANITARY SEWER TAP

DRAWN BY - KJM

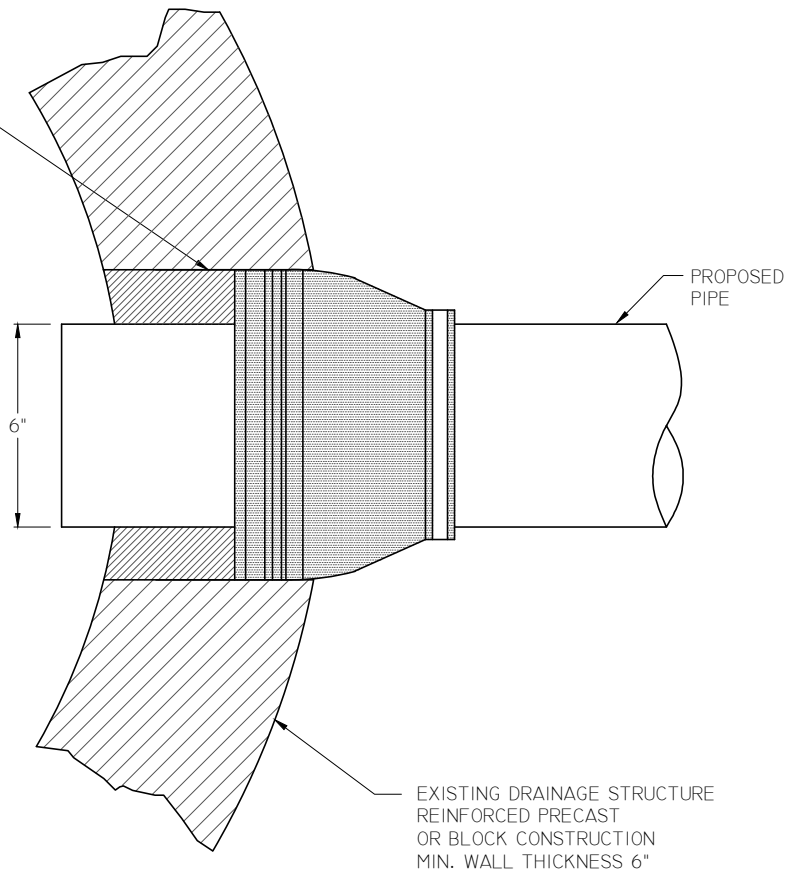
CHECKED BY - JJ0

DATE DRAWN - 3-2021

DATE REVISED - 3-2021

S-15A

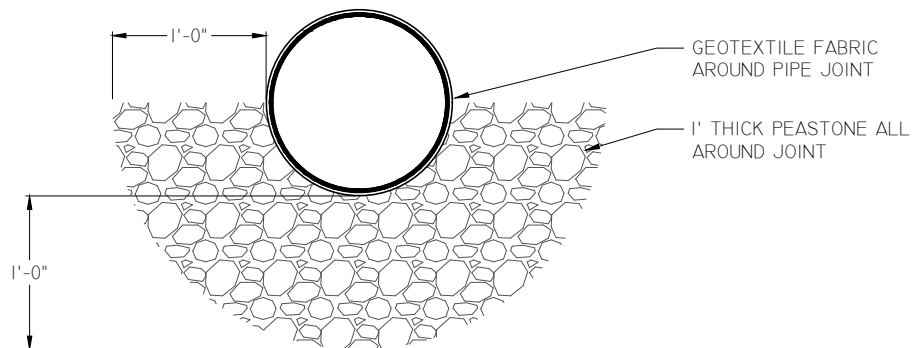
NOTE:
PROPOSED PIPE SHALL NOT
EXTEND BEYOND 6" OF EXISTING
INSIDE WALL OF DR. STRUCTURE.



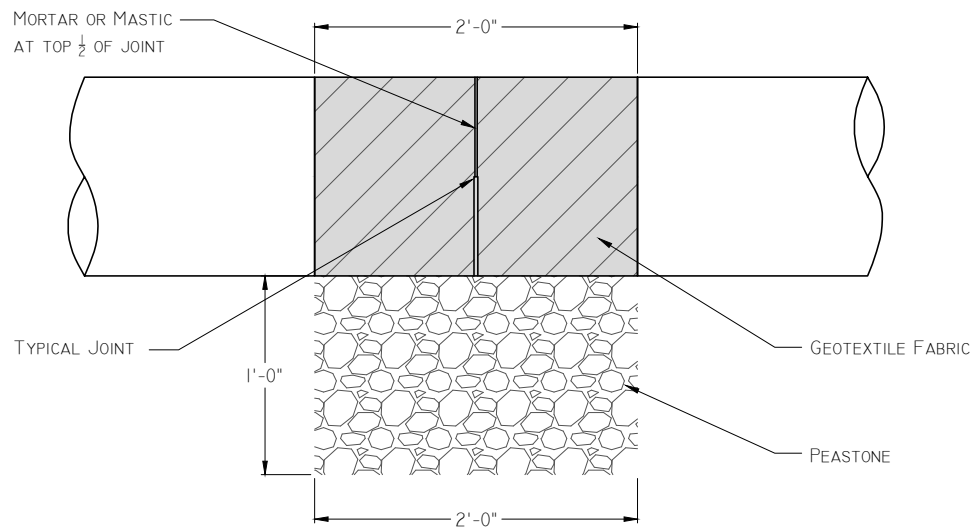
PLAN

NOTE: ALL RECHANNELING
REQUIRED INSIDE OF
DRAINAGE STRUCTURE WILL
BE INCLUDED IN UNIT PRICE
BID FOR SEWER CUT-INS.

CITY OF WYOMING ENGINEERING DEPARTMENT	
DRAINAGE STRUCTURE (SANITARY SEWER CUT-IN)	
DRAWN BY - KJM	S-15B
CHECKED BY - JJ0	
DATE DRAWN - 3-2021	
DATE REVISED - 3-2021	



END VIEW



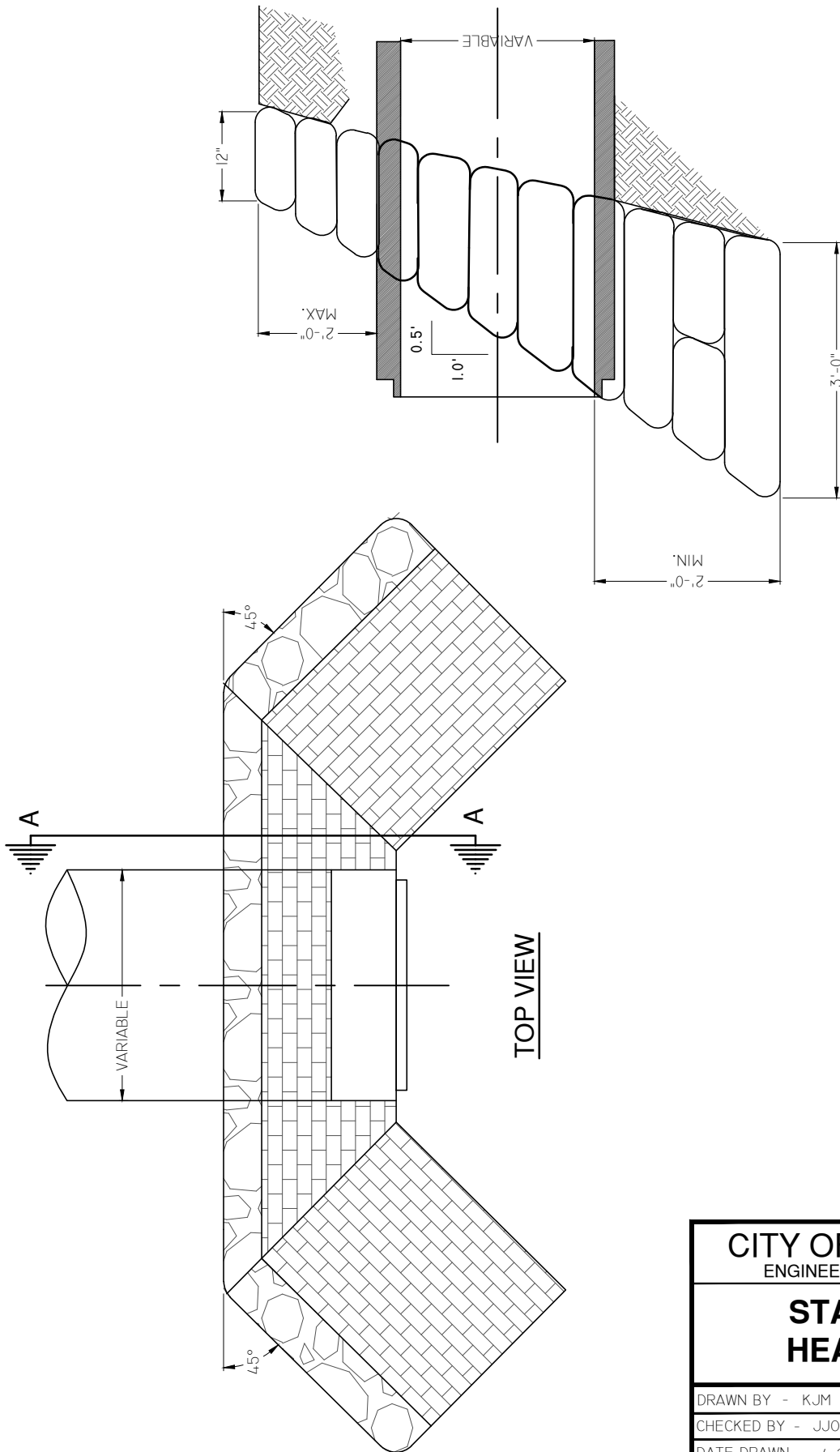
SIDE VIEW

CITY OF WYOMING
ENGINEERING DEPARTMENT

OPEN JOINT DETAIL

DRAWN BY - KJM
CHECKED BY - JJO
DATE DRAWN - 4-2021
DATE REVISED - 4-2021

S-16



CITY OF WYOMING
ENGINEERING DEPARTMENT

STANDARD HEADWALL

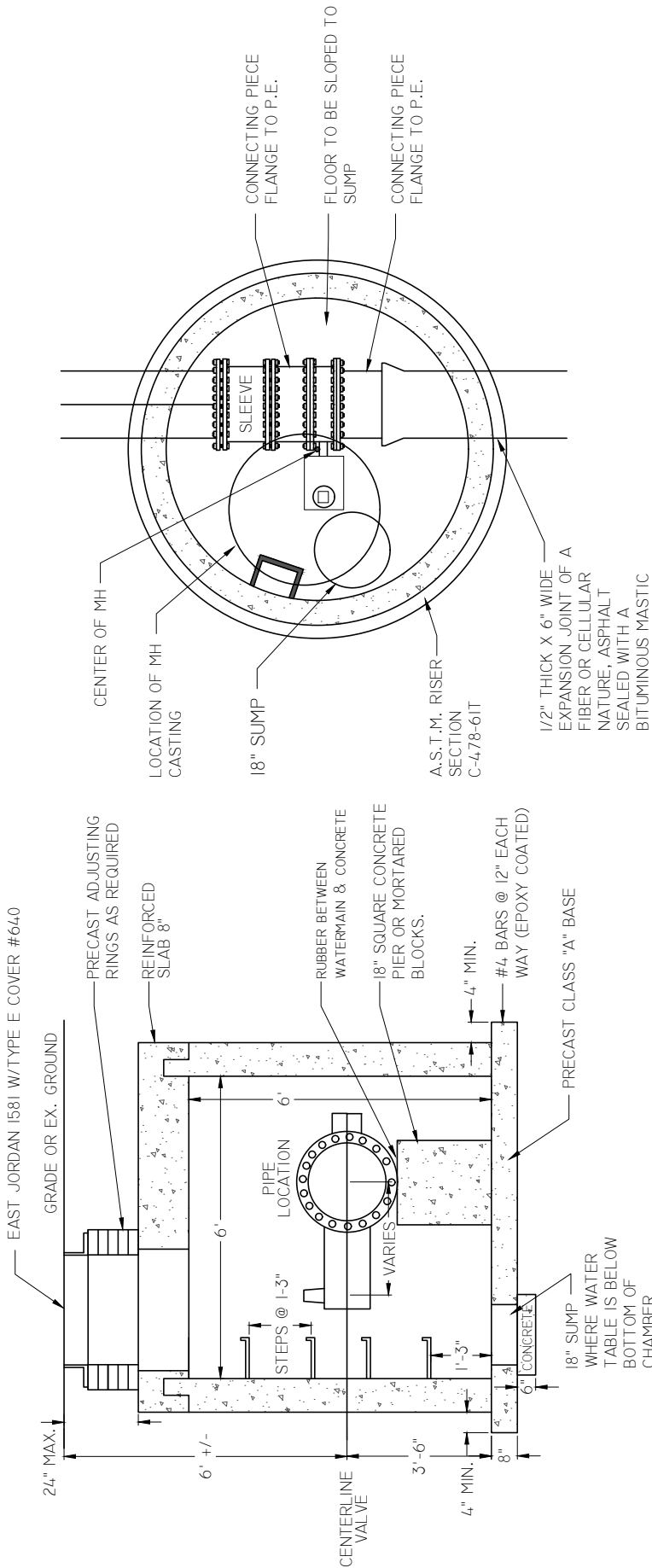
DRAWN BY - KJM

CHECKED BY - JJO

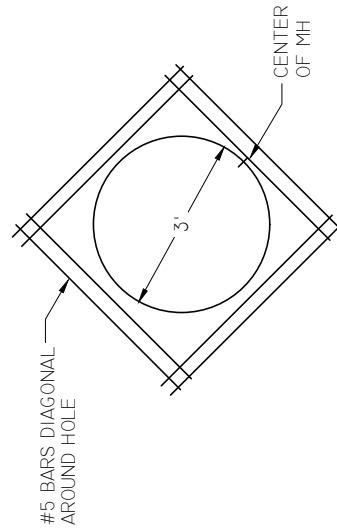
DATE DRAWN - 4-2021

DATE REVISED - 4-2021

S-17



TOP VIEW



REINFORCING DETAIL AROUND HOLE IN TOP SLAB

CITY OF WYOMING
ENGINEERING DEPARTMENT

PRECAST VALVE CHAMBER FOR BUTTERFLY VALVES

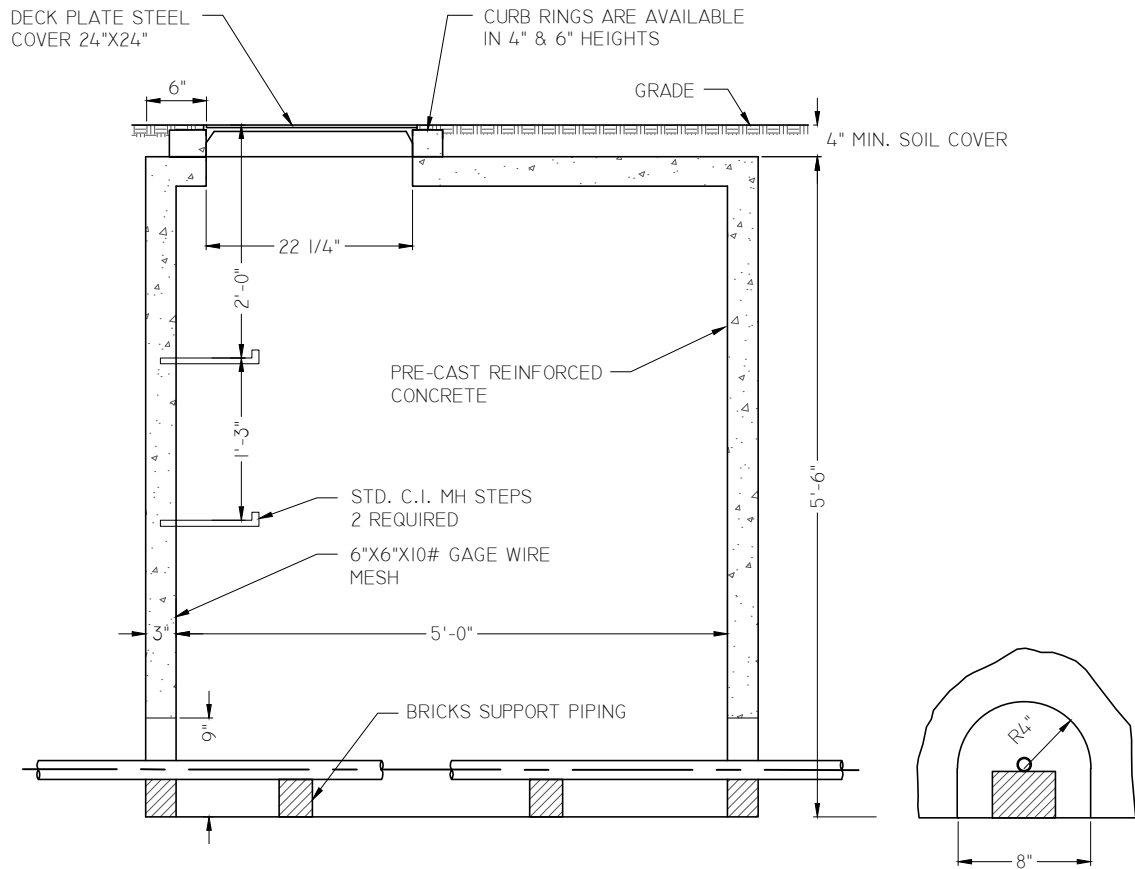
DRAWN BY - KJM

CHECKED BY - JJO

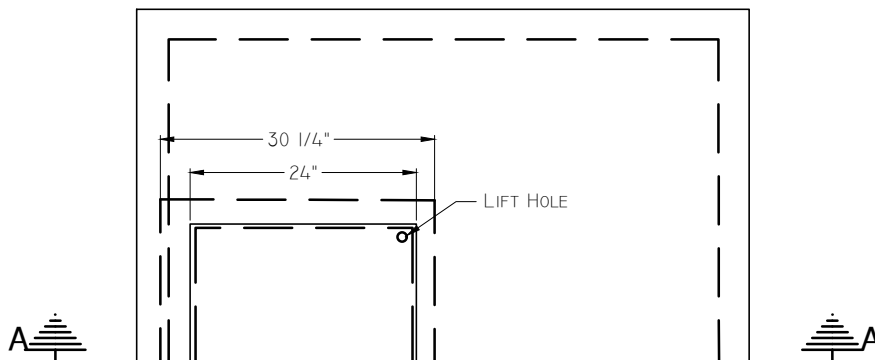
DATE DRAWN - 4-2021

DATE REVISED - 4-2021

W-17



SECTION A-A



TOP VIEW

NOTE: CONCRETE REINFORCED WITH 6"X6"X10# GAGE WIRE MESH.

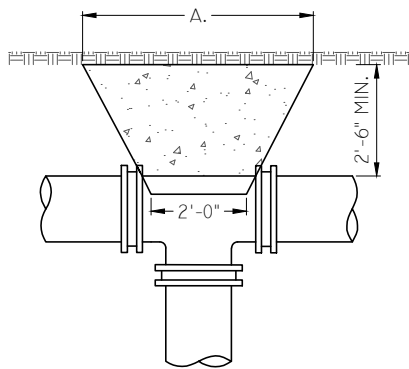
NOT TO BE CONSTRUCTED BELOW DRIVEWAYS OR PARKING AREAS.

CITY OF WYOMING
ENGINEERING DEPARTMENT

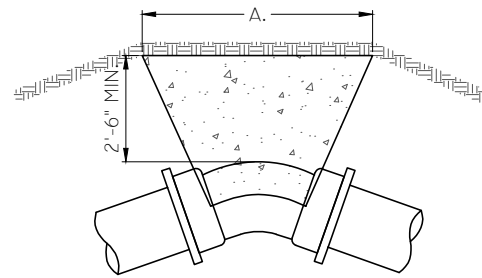
STANDARD METER PIT

DRAWN BY - KJM
CHECKED BY - JJO
DATE DRAWN - 4-2021
DATE REVISED - 4-2021

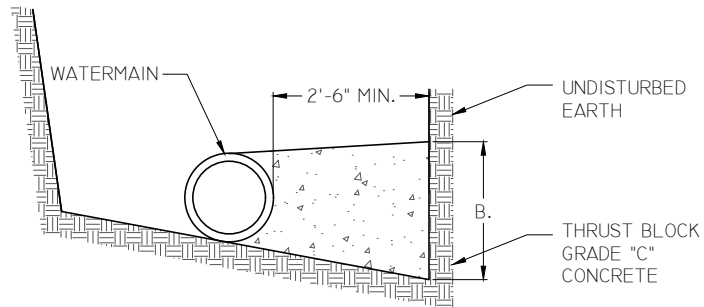
W-18



**TYPICAL TEE
CONNECTION**



**TYPICAL BEND
CONNECTION**



**TYPICAL SECTION THRU
THRUST BLOCK**

		<u>A.</u>	<u>B.</u>			<u>A.</u>	<u>B.</u>
4"	TEE	1'	1'	12"	TEE	3'	2'
	90°	1'	1'		90°	4'	2'
	45°	1'	1'		45°	3'	2'
	22.5°	1'	1'		22.5°	3'	1'
6"	TEE	2'	1'	16"	TEE	4'	2'
	90°	2'	1'		90°	5'	3'
	45°	2'	1'		45°	4'	2'
	22.5°	2'	1'		22.5°	3'	2'
8"	TEE	3'	1'	20"	TEE	5'	3'
	90°	3'	1'		90°	5'	4'
	45°	3'	1'		45°	5'	3'
	22.5°	2'	1'		22.5°	4'	2'
10"	TEE	3'	2'	24"	TEE	5'	4'
	90°	3'	2'		90°	6'	4'
	45°	3'	2'		45°	5'	3'
	22.5°	3'	1'		22.5°	4'	2'

CITY OF WYOMING
ENGINEERING DEPARTMENT

**THRUST BLOCK
DETAILS**

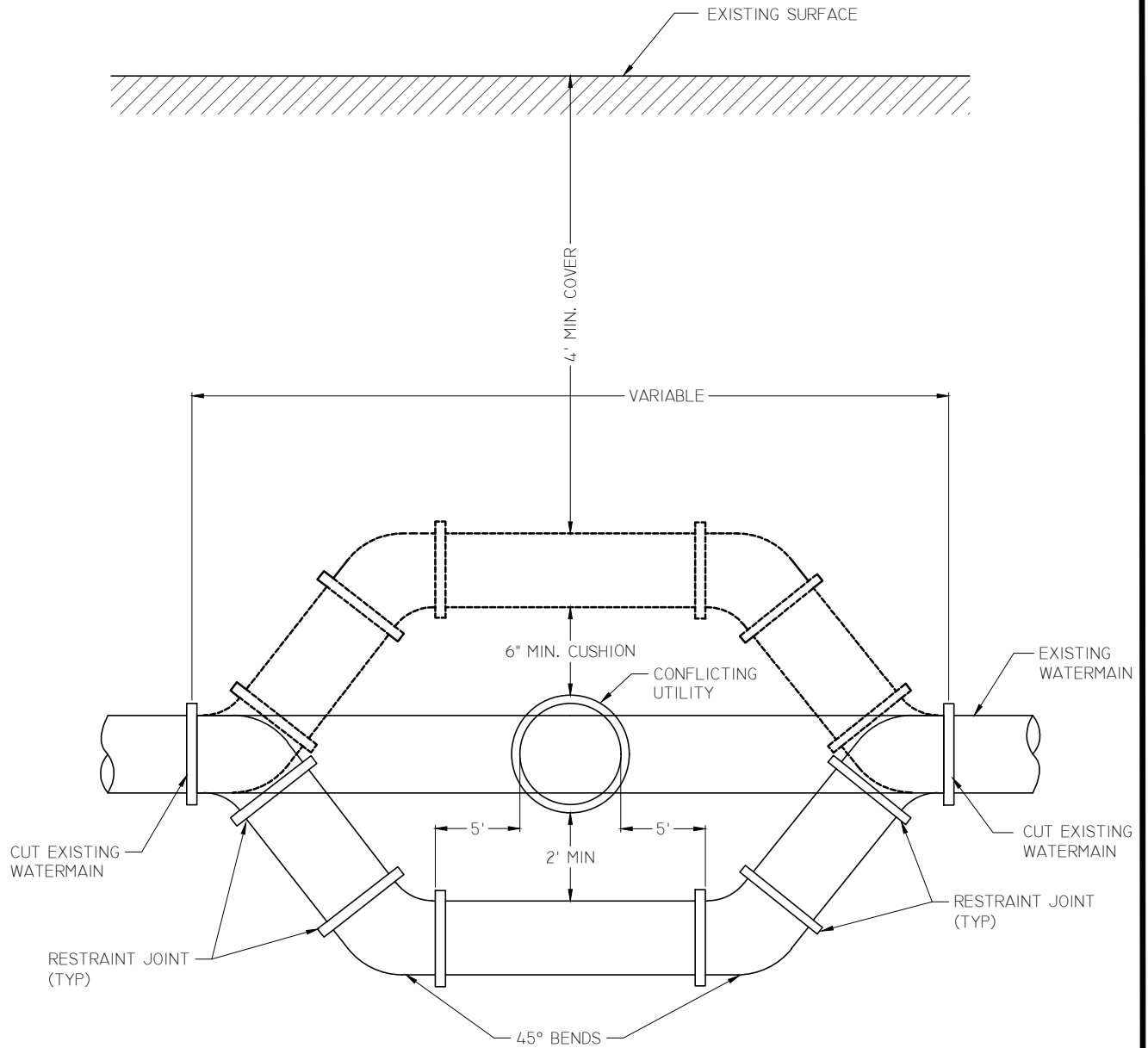
DRAWN BY - KJM

CHECKED BY - JJO

DATE DRAWN - 4-2021

DATE REVISED - 4-2021

W-19



NOTE:

WATERMAIN MUST BE RESTRAINED

CITY OF WYOMING
ENGINEERING DEPARTMENT

WATERMAIN RELOCATION DETAIL

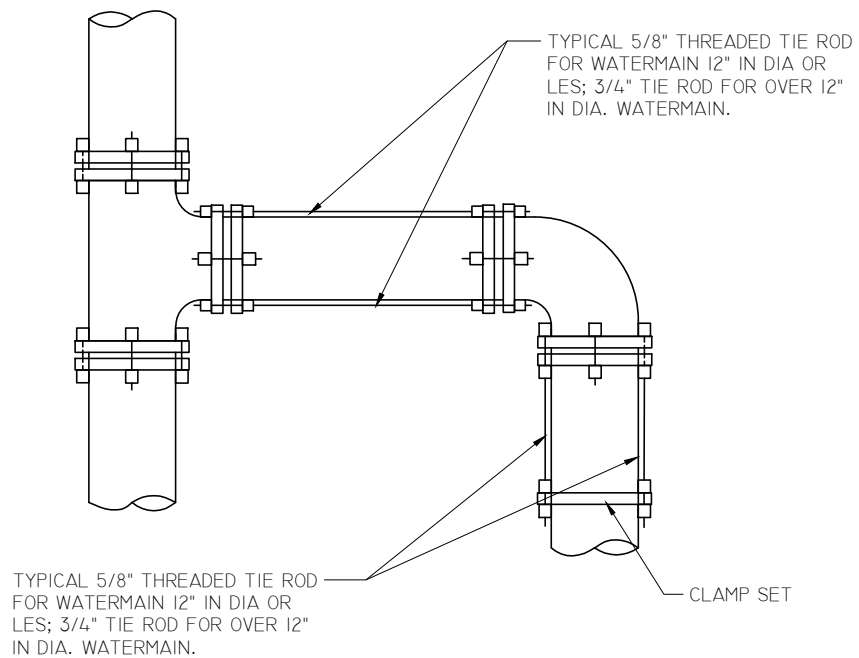
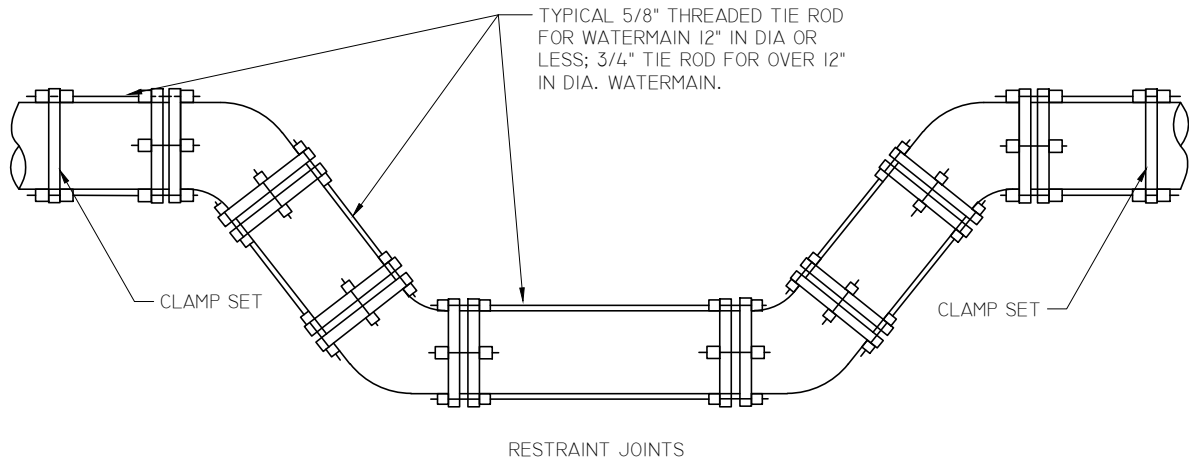
DRAWN BY - KJM

CHECKED BY - JJ0

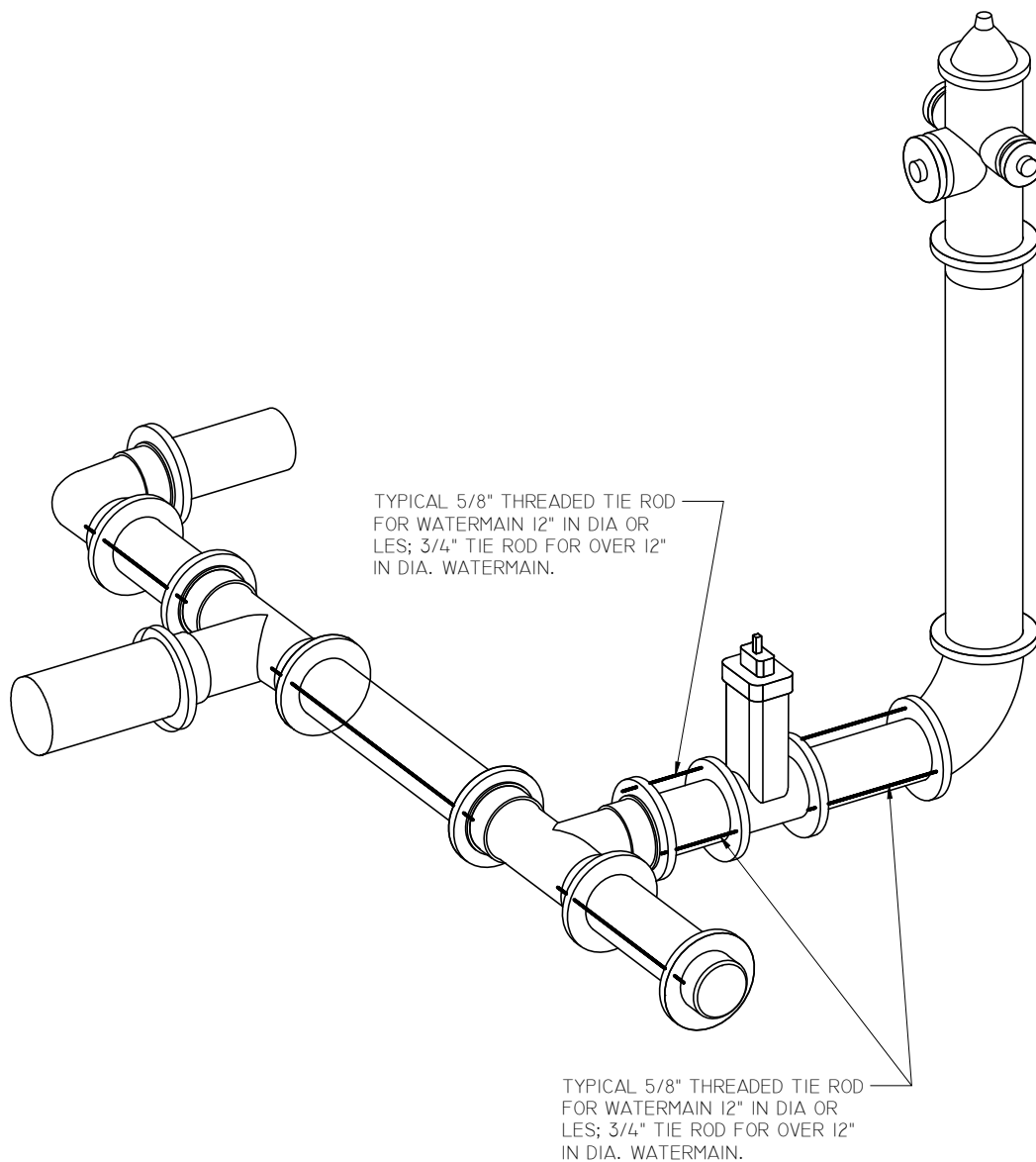
DATE DRAWN - 4-2021

DATE REVISED - 4-2021

W-20



CITY OF WYOMING ENGINEERING DEPARTMENT	
LEGACY WATERMAIN TIE RODS FOR THRUST RESTRAINT	
DRAWN BY - KJM	W-21A
CHECKED BY - JJO	
DATE DRAWN - 4-2021	
DATE REVISED - 4-2021	



CITY OF WYOMING
ENGINEERING DEPARTMENT

**TYPICAL HYDRANT TIE
RODS FOR THRUST
RESTRAINT**

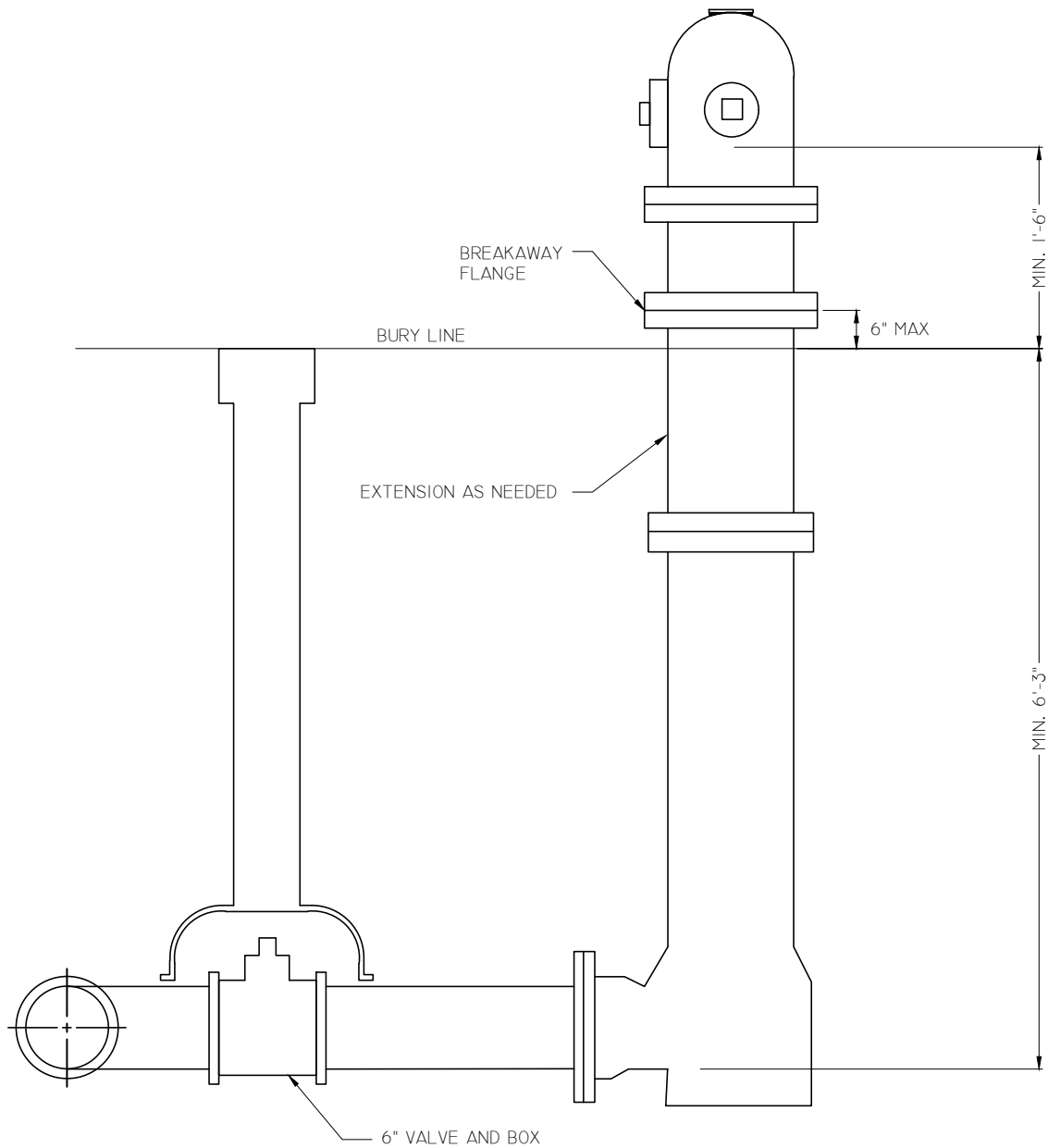
DRAWN BY - KJM

CHECKED BY - JJO

DATE DRAWN - 4-2021

DATE REVISED - 4-2021

W-21B



CITY OF WYOMING
ENGINEERING DEPARTMENT

HYDRANT BURY DETAIL

DRAWN BY - KJM

CHECKED BY - JJO

DATE DRAWN - 4-2021

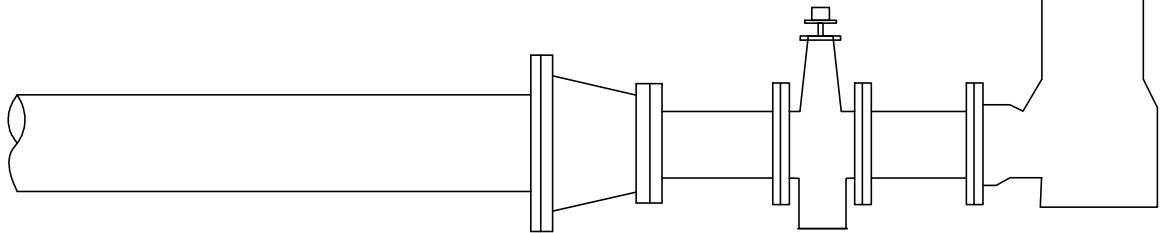
DATE REVISED - 4-2021

W-22

DEAD END WATERMAINS SHALL TERMINATE WITH ONE OF THE FOLLOWING METHODS ADEQUATE RESTRAINT SHALL BE USED PRIOR TO THE REDUCER OR TEE RESTRAINT SHALL BE M.J. PIPE OR OTHER METHODS APPROVED BY THE ENGINEER.

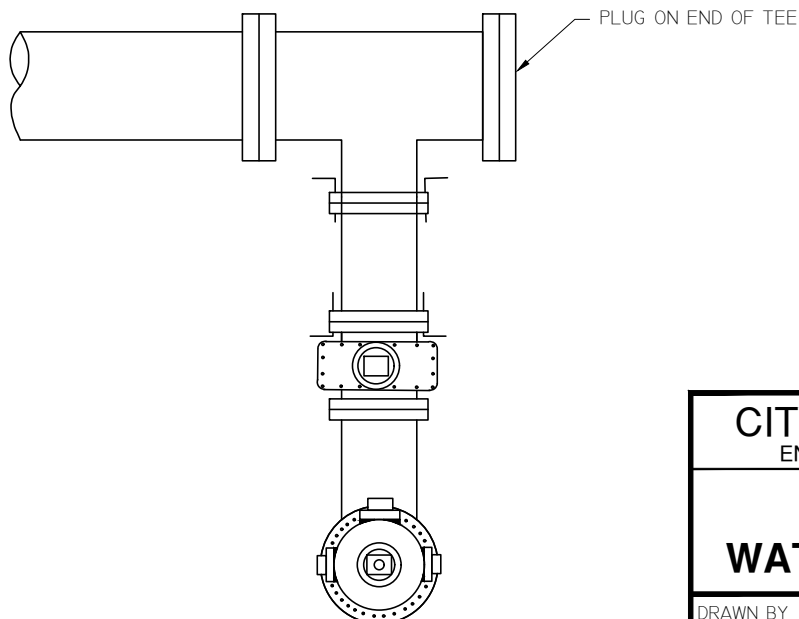
OPTION 1:

HYDRANT WITH REDUCER



OPTION 2:

HYDRANT WITH TEE & PLUG



CITY OF WYOMING
ENGINEERING DEPARTMENT

**DEAD END
WATERMAIN DETAIL**

DRAWN BY - KJM

CHECKED BY - JJO

DATE DRAWN - 4-2021

DATE REVISED - 4-2021

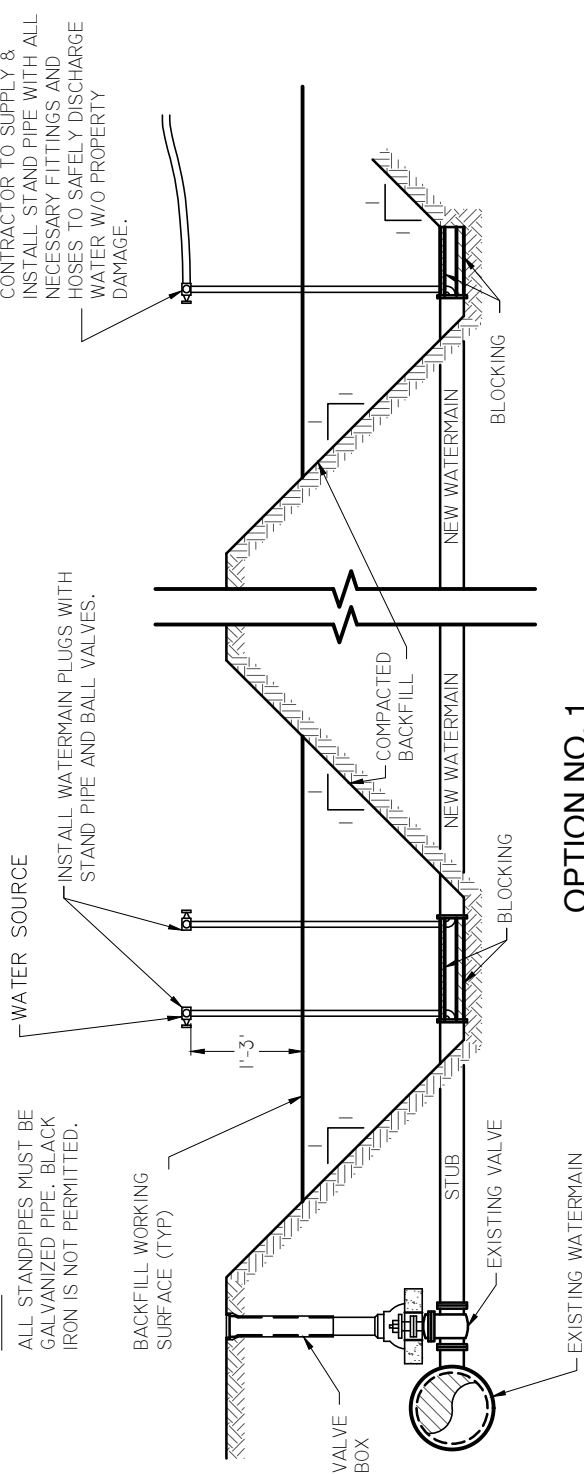
W-24

NOTE:

CONNECTION OPTION TO BE USED WILL BE DETERMINED BY THE CITY.
STAND PIPE DIAMETER SHALL BE AS REQUIRED BY THE CURRENT WYOMING TESTING PROCEDURE.
(2" STAND PIPES ARE TYPICALLY SUFFICIENT FOR WM UP TO 10" DIA.)

NOTE:

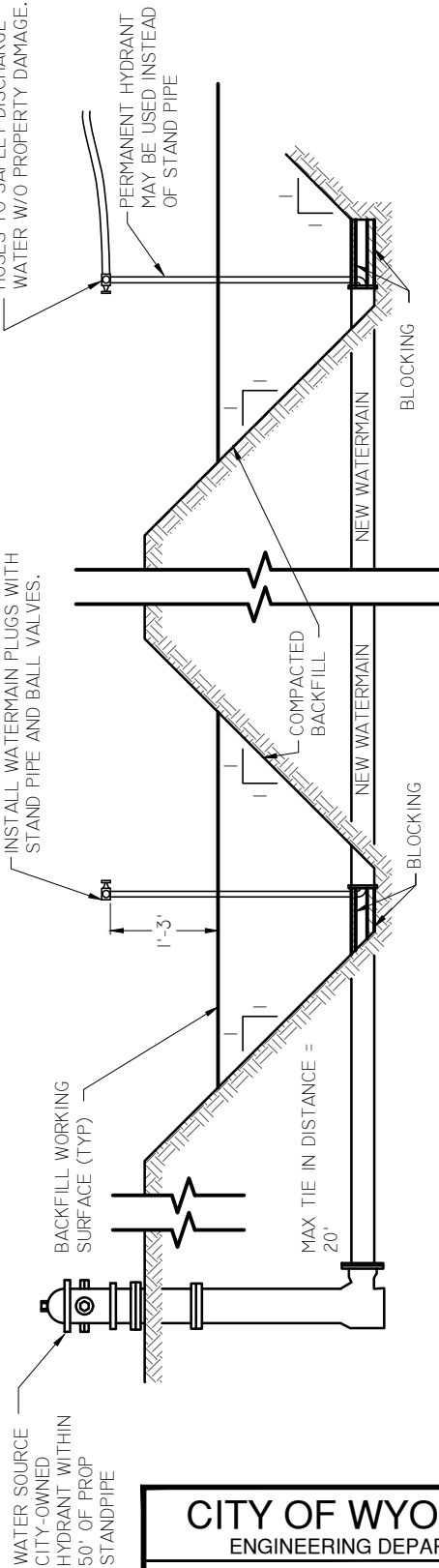
ALL STANDPIPES MUST BE GALVANIZED PIPE. BLACK IRON IS NOT PERMITTED.



**OPTION NO. 1
STANDPIPE - STAND PIPE**

CONTRACTOR TO SUPPLY & INSTALL STAND PIPE WITH ALL NECESSARY FITTINGS AND HOSES TO SAFELY DISCHARGE WATER W/O PROPERTY DAMAGE.

INSTALL WATERMAIN PLUGS WITH STAND PIPE AND BALL VALVES.



**OPTION NO. 2
HYDRANT - STAND PIPE**

**CITY OF WYOMING
ENGINEERING DEPARTMENT**

**TESTING AND
CHLORINATION
CONNECTIONS**

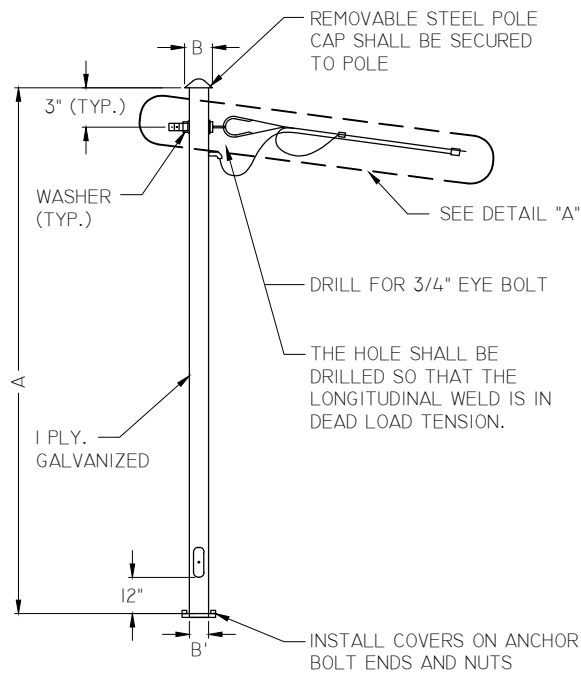
DRAWN BY - KJM

CHECKED BY - JJO

DATE DRAWN - 4-2021

DATE REVISED - 4-2021

W-25



NOTE:
GROUNDING SYSTEM SHALL MEASURE
10 OHM OR LESS TO GROUND

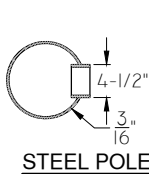
POLE REQUIREMENTS				
LENGTH	A	30 FT	30 FT (ALTERNATE)	35 FT
GAUGE		#3-1 PLY (MIN.)	#3-1 PLY (MIN.)	#3-1 PLY (MIN.)
POLE DIA AT TOP	B	8" MIN $\pm \frac{1}{2}$ "	7 $\frac{3}{4}$ " MIN $\pm \frac{1}{4}$ "	8" MIN $\pm \frac{1}{2}$ "
POLE DIA AT BOTTOM	B'	13" $\pm \frac{1}{2}$ "	11 $\frac{1}{4}$ " $\pm \frac{1}{4}$ "	13" $\pm \frac{1}{2}$ "
MAX DEFLECTION LOAD 18" F ROM TOP FOR UNGUYED POLE		3700 LBS	3700 LBS	3700 LBS
DEFLECTION 18" FROM TOP		NOT GREATER THAN 0.4"/100 LBS	NOT GREATER THAN 0.4"/100 LBS	NOT GREATER THAN 0.4"/100 LBS
FULL LENGTH TAPER		+0.003 IN/FT 0.14 IN/FT -0.000 IN/FT	+0.003 IN/FT 0.14 IN/FT -0.000 IN/FT	+0.003 IN/FT 0.14 IN/FT -0.000 IN/FT
BASE PLATE	D	20 IN	20 IN	20 IN
BASE PLAT THICKNESS	T	2 IN	2 IN	2 IN
ANCHOR BOLT CIRCLE	BC	20 IN	20 IN	20 IN
ANCHOR BOLT DIA	d	2 IN	2 IN	2 IN
ANCHOR BOLT LENGTH (INCLUDES 5" "L" BEND)		120 IN	120 IN	120 IN

ANCHOR BASE STEEL STRAIN POLE N.T.S.

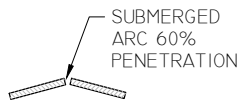
REQUIRED
UNION METAL
30' GALVANIZED POLE WITH ANCHOR BOLTS
OR EQUAL



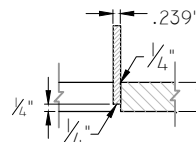
TYPICAL CROSS SECTION
(POLYGON OPTIONAL)



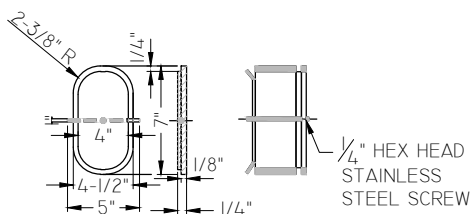
STEEL POLE



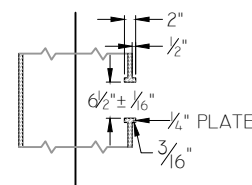
**LONGITUDINAL
WELD JOINT**



**BASE TO BASE
WELD JOINT**



HAND HOLE COVER



SECTION "A-A"

NOTES:

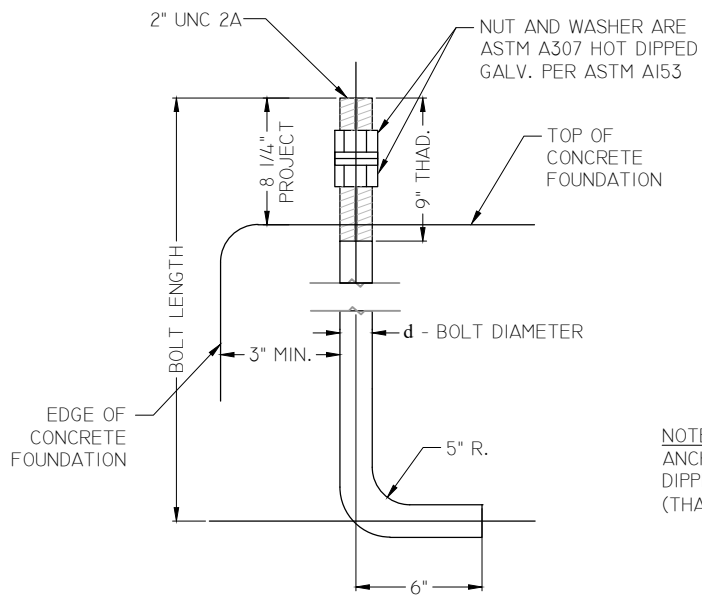
- ACCEPTABLE MILL TOLERANCES TO APPLY TO ALL NOMINAL DIMENSIONS.
- HANDHOLE SHALL BE PROVIDED & BE PERPENDICULAR TO EYE BOLT HOLE.
- MATERIAL () GALVANIZED FINISH.
 - SHAFT STEEL SHALL BE ASTM A572. Fy-50KSI.
 - BASE PLATE ASTM A36.
 - ALL GALVANIZING SHALL MEET ASTM A123.
 - ANCHOR BOLTS SHALL BE ASTM A307. Fy-50KSI. IN ACCORDANCE WITH (ART. 8.07.14) OF MOOT SPECIFICATIONS.
- WELDING
 - WELDING SHALL CONFORM TO AWS 01.1
 - ULTRASONIC INSPECTION FOR ALL 100% WELDS AND VISUAL AND/OR MAGNETIC PARTICLE FOR ALL OTHERS
- TOLERANCES OVERALL HEIGHT +/- 1% I
 - SWEEP AN CHAMBER " PER FEET. 8
 - TWIST 10" MAX. OVERALL.
- DESIGN CONFORMING TO CURRENT AASHTO
 - SPECIFICATIONS FOR DESIGN OF STRUCTURAL SUPPORTS FOR TRAFFIC SIGNALS ASSUMING A SAG OF 10% OF SPAN WITH MAXIMUM OF 5 SIGNALS WITH PLASTIC HEADS TETHERED.

CITY OF WYOMING
ENGINEERING DEPARTMENT

TRAFFIC SIGNAL POLE

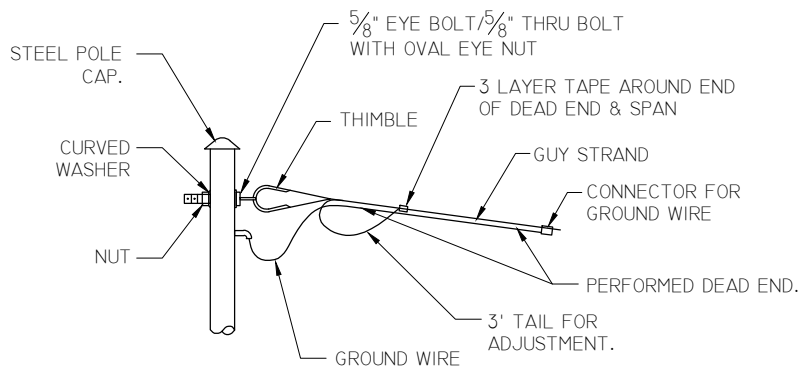
DRAWN BY - SP
CHECKED BY - RH
DATE DRAWN - JUNE, 2008
DATE REVISED - JUNE, 2008

T-1A

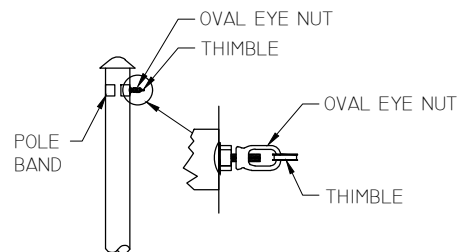


NOTE:
ANCHOR BOLTS ARE HOT
DIPPED GALV. PER ASTM A153
(THAD. PLUS 3").

ANCHOR BOLT



DETAIL "A"



DETAIL "A" (ALTERNATE)

REQUIRED
UNION METAL
30' GALVANIZED POLE WITH ANCHOR BOLTS
OR EQUAL

CITY OF WYOMING
ENGINEERING DEPARTMENT

**WALK WAIT PEDESTAL
(DETAILS)**

DRAWN BY - JZ
CHECKED BY - MB
DATE DRAWN -
DATE REVISED - MARCH, 1990

T-1B

STEEL POLE

4 1/2" O.D. x .237 WALL SCHEDULE 40-10.79 LB/FT
GALVANIZED PER ASTM-A-123 IF REQUIRED

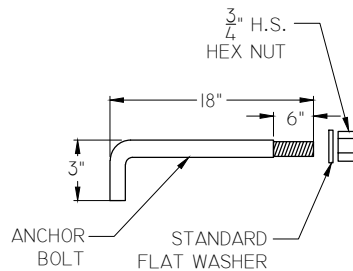
ALUMINUM POLE

6063-T6 ALLOY

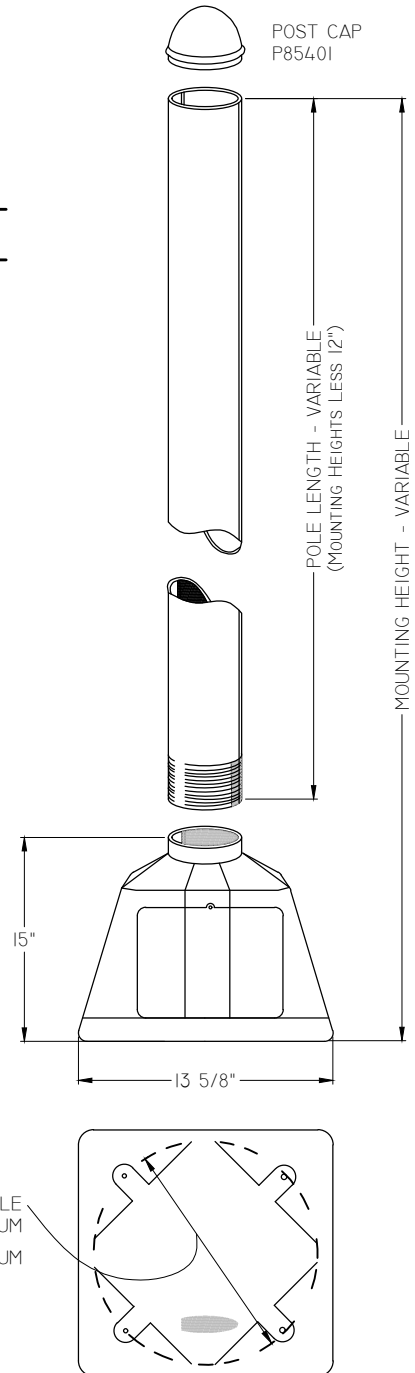
4 1/2" O.D. x .237 WALL SCHEDULE 40-3.73 LB/FT
SPUN FINISH (UNLESS SPECIFIED OTHERWISE)

CATALOG No.	DESCRIPTION	WEIGHT
*P85100-2	2' SPUN ALUMINUM POLE	7.50 LBS.
*P85100-7	7' SPUN ALUMINUM POLE	26.00 LBS.
*P85100-9	9' SPUN ALUMINUM POLE	33.50 LBS.
*P85100-10.5	10' 6" SPUN ALUMINUM POLE	39.50 LBS.
*P85200-7	7' STEEL POLE (GALVANIZED)	75.00 LBS.
*P85200-9	9' STEEL POLE (GALVANIZED)	97.00 LBS.
*P85200-10.5	10' 6" STEEL POLE (GALVANIZED)	114.00 LBS.
P85300	SQUARE ALUMINUM BASE	23.75 LBS.
P85301	OCTAGONAL ALUMINUM BASE	25.50 LBS.
P85306	ANCHOR BOLT (SET OF 4 WITH 1 NUT AND WASHER PER BOLT)	9.25 LBS.
P85307	SQUARE CAST IRON BASE (PAINTED-SPECIFY GREEN OR YELLOW)	74.00 LBS.
P85308	SQUARE CAST IRON BASE (GALVANIZED)	74.00 LBS.
P85309	OCTAGONAL CAST IRON BASE (PAINTED-SPECIFY GREEN OR YELLOW)	76.00 LBS.
P85310	OCTAGONAL CAST IRON BASE (GALVANIZED)	76.00 LBS.
P85311	SQUARE ALUMINUM BASE (HEAT TREATED 356-T6)	23.75 LBS.
P85401	POST CAP (ACORN TYPE)	1.50 LBS.
P85402	POST CAP (DOME TYPE)	1.50 LBS.

*OTHER LENGTHS AVAILABLE ON REQUEST.



BOLT CIRCLE
12" MINIMUM
14 3/4" MAXIMUM



PELCO'S SIGNAL BASES AND POLES ARE
MANUFACTURED TO EXACTING SPECIFICATIONS
FROM THE HIGHEST QUALITY MATERIALS. THESE
PRODUCTS PROVIDE-EASE OF INSTALLATION,
DURABILITY AND THE VERY MINIMUM IN
MAINTENANCE

REQUIRED
PELCO # PB5100-9
9' SPUN ALUMINUM POLE AND
PELCO #PB5300
SQUARE ALUMINUM BASE WITH ANCHOR BOLTS
OR EQUAL

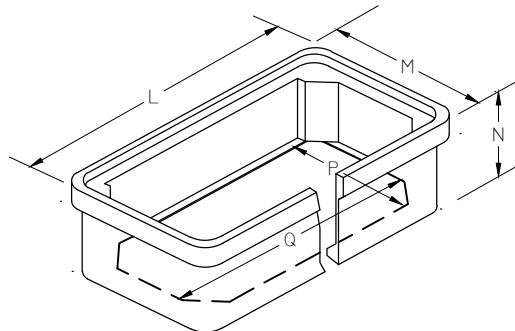
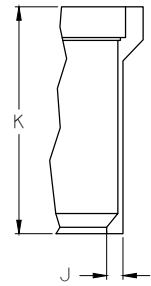
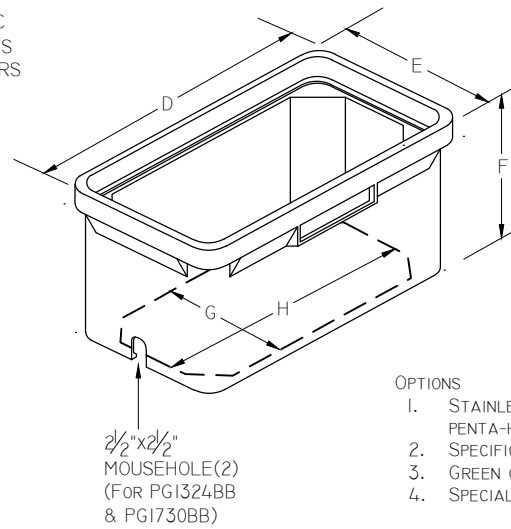
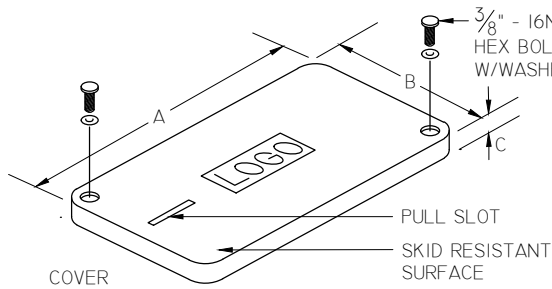
CITY OF WYOMING
ENGINEERING DEPARTMENT

WALK WAIT PEDESTAL

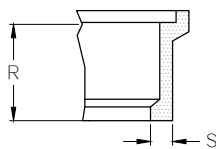
DRAWN BY - JZ
CHECKED BY - MB
DATE DRAWN -
DATE REVISED - MARCH, 1990

T-2

SPECIFICATIONS/DATA
13"X24" & 17"X30" PG STYLE ASSEMBLIES



EXTENSION
(FOR USE UNDER
BOX ONLY)



OPTIONS

1. STAINLESS STEEL STANDARD PENTA-HEAD BOLT
2. SPECIFIC COVER LOGO
3. GREEN OR OTHER COLORS
4. SPECIAL HOLES/KNOCKOUTS

COVERS(BLANK UNLESS LOGO IS SPECIFIED)

DESCRIPTION	PART NO.	DIMENSION (IN.)			WT. LBS.
		A	B	C	
LOCKING	PGI324CA00	23 ³ / ₄	13 ³ / ₄	2	32
COVER	PGI730CA00	30 ¹ / ₂	17 ¹ / ₂	2	47
NON-LOCKING	PGI324WA00	23 ³ / ₄	13 ³ / ₄	2	33
COVER	PGI730WA00	30 ¹ / ₂	17 ¹ / ₂	2	48
HEAVY DUTY	PGI324SA00	25	15 ¹ / ₂	2	65
STEEL LOCKING COVER	PGI730SA00	32 ¹ / ₂	19 ¹ / ₄	2	90
HEAVY DUTY	PGI324HA00	23 ³ / ₄	13 ³ / ₄	2	50
LOCKING COVER	PGI730HA00	30 ¹ / ₂	17 ¹ / ₂	2	74

DESCRIPTION	PART NO.	DIMENSIONS (IN.)							WT. LBS.
		D	E	F	G	H	J	K	
STANDARD Box	PGI324BAI2	25	15 ¹ / ₂	12	9 ³ / ₄	19 ¹ / ₄	1 ¹ / ₄	10	53
	PGI324BAI8	25	15 ¹ / ₂	18	9 ³ / ₄	19 ¹ / ₄	1 ¹ / ₄	16	62
	PGI730BAI2	32 ¹ / ₄	19 ¹ / ₄	12	13 ¹ / ₂	26 ¹ / ₂	1 ¹ / ₄	10	82
	PGI730BAI8	32 ¹ / ₄	19 ¹ / ₄	18	13 ¹ / ₂	26 ¹ / ₂	1 ¹ / ₄	16	94
	PGI730BAI8	32 ¹ / ₄	19 ¹ / ₄	22	13 ¹ / ₂	26 ¹ / ₂	1 ¹ / ₄	20	106

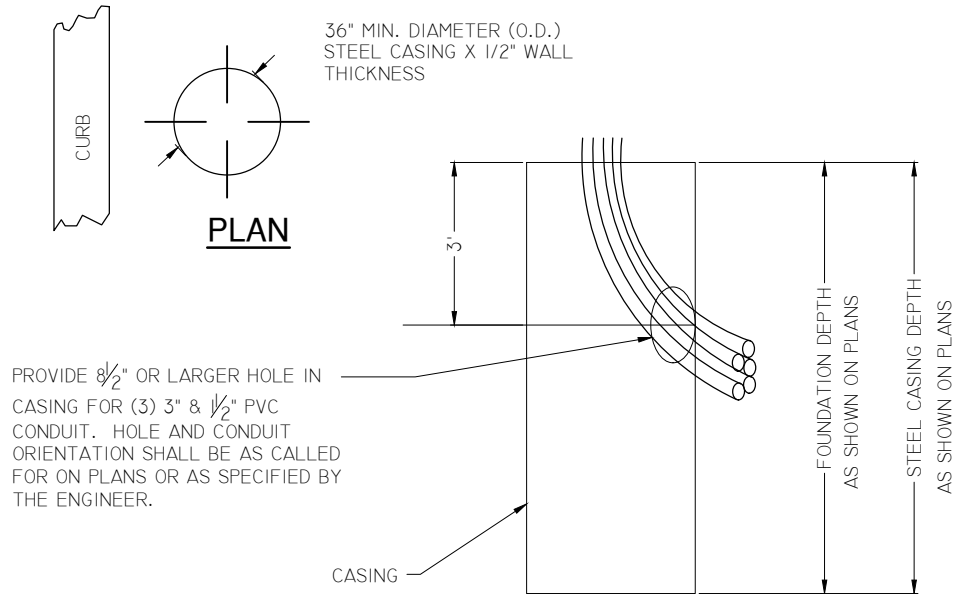
CITY OF WYOMING
ENGINEERING DEPARTMENT

TRAFFIC SIGNAL
HANDHOLE

DRAWN BY - JZ
CHECKED BY - MB
DATE DRAWN -
DATE REVISED - MARCH, 1990

T-3

NOTE:
42" DIAMETER FOUNDATIONS ARE PERMISSIBLE BASED ON THE SPECIFICATIONS LISTED IN THE FOUNDATION DEPTH AND SOIL TABLE. ALTERNATE 42" DIAMETER FOUNDATION DEPTHS SHALL BE CONTRACTOR DEIGNED AND SUBMITTED FOR EVALUATION AND APPROVAL OF THE ENGINEER.



1. CUT $\frac{1}{2}$ " OR LARGER DIAMETER HOLE IN STEEL CASING AT 3 FEET ROM TOP OF FOUNDATION FOR CONDUIT.
2. TRENCH FOR PLACEMENT OF CONDUITS AFTER CASING IS IN PLACE AND BEFORE DEWATERING.

FOUNDATION DEPTH AND SOIL TABLE				
MAST ARM TYPE	SOIL CONDITION		FOUNDATION DEPTH (MIN)	CASING DEPTH
	Suc	N		
SINGLE ARM	500<Suc<750	4<N<10	16.0'	
SINGLE ARM	Suc>750	N>10	13.5'	AS SHOWN ON PLANS
DOUBLE ARM	500<Suc<750	4<N<10	18.5'	
DOUBLE ARM	Suc>750	N>10	15.5'	

Suc=UNCONFIDED COMPRESSIVE SHEARING RESISTANCE IN COHESIVE SOIL (PSF)
N=BLOWS/FOOT OF PENETRATION ACCORDING TO ASTM D1586.

A SPECIAL DESIGN IS REQUIRED IF N<4 OR Suc<500 PSF

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**MAST ARM STANDARD
FOUNDATIONS**

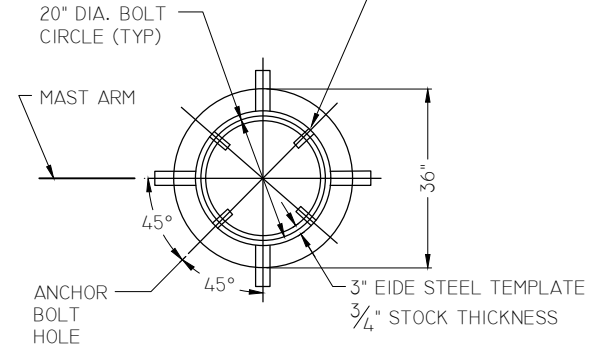
DRAWN BY - JZ
CHECKED BY - MB
DATE DRAWN -
DATE REVISED - MARCH, 1990

T-4A

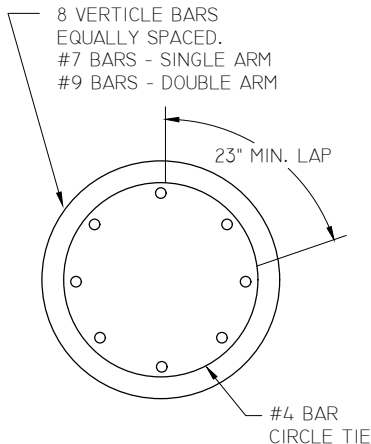
NOTES:

1. ANCHOR BOLTS SHALL BE SET AND HELD VERTICAL AT THE CORRECT LOCATION AND AT THE PROPER ELEVATION WITH A $\frac{3}{4}$ " STEEL (OR APPROVED EQUAL) TEMPLATE A MINIMUM OF 24 HOURS AFTER THE CONCRETE PLACEMENT HAS BEEN COMPLETED. EACH SET OF FOUR BOLTS SHALL BE TIED TOGETHER BY WELDING INTO A BASKET WITH #6 BAR CIRCLE OR APPROVED EQUAL. THIS IS IN ADDITION TO THE STEEL TEMPLATE.
2. (4) - ANCHOR BOLTS WITH (2) HEX NUTS. (2) WASHERS AND (2) S.S. BEVELED WASHERS PER BOLT WITH THREADED END GALVANIZED A MINIMUM 20" PER ASTM A153

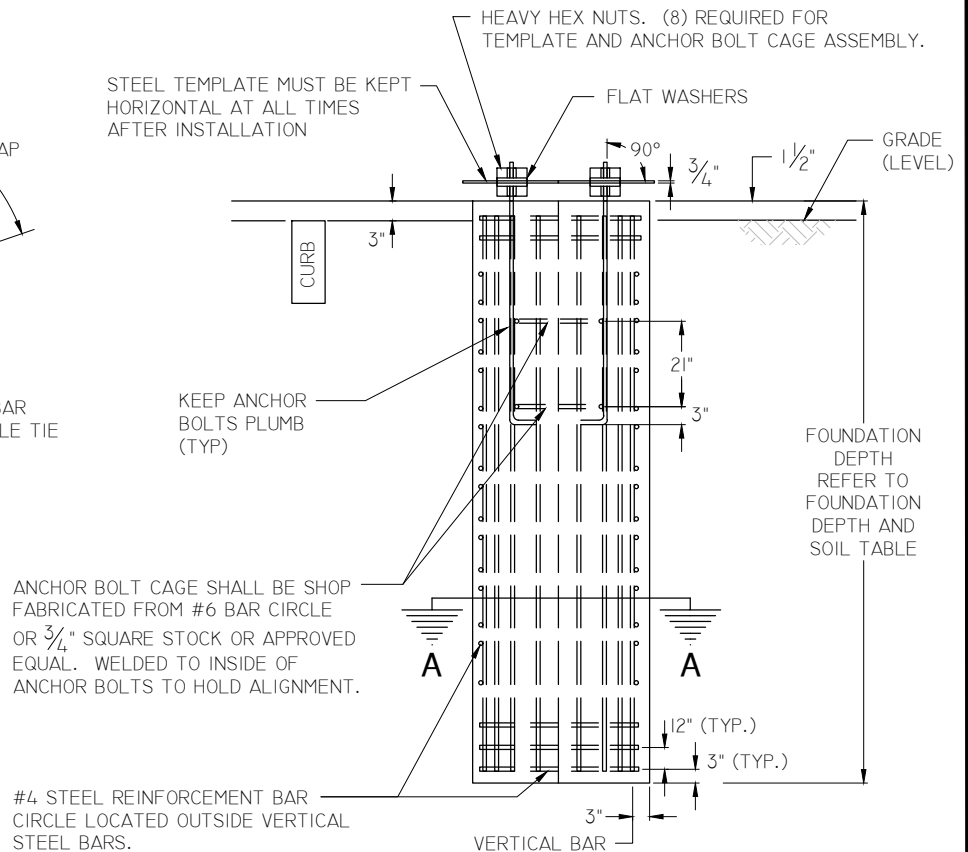
ANCHOR BOLTS-2" DIA. EQUALLY SPACED AT 90° ON A 20" DIA. BOLT CIRCLE



PLAN VIEW



SECTION A-A



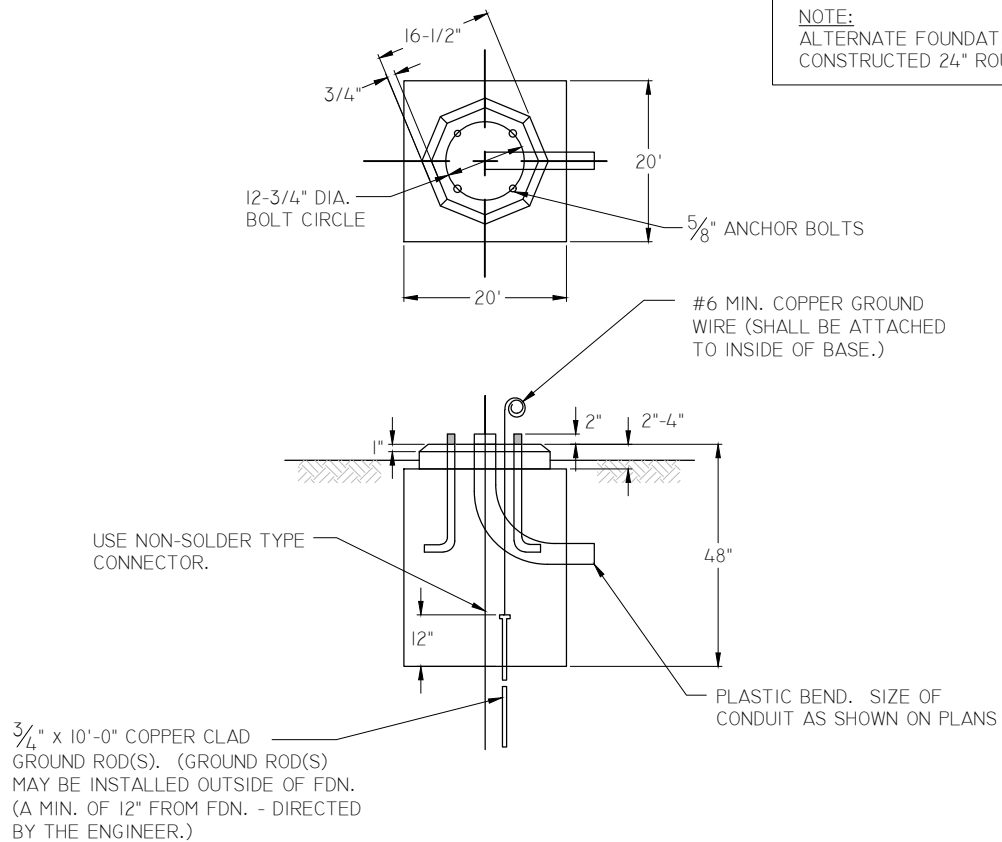
ELEVATION

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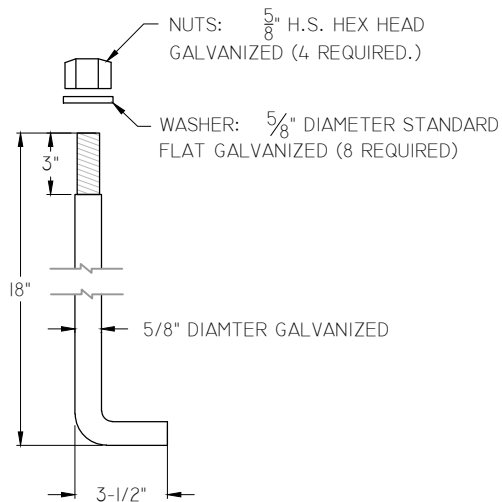
MAST ARM STANDARD FOUNDATIONS

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DATE REVISED - JUNE 2008

T-4B



PEDESTAL FOUNDATION



DETAIL OF ANCHOR BOLT ANCHOR BOLTS ARE TO BE 307 STEEL (4 REQUIRED)

TYPE OF ANCHOR BOLTS AND PLACEMENT IN
CONCRETE BASE WILL BE PER DETAIL T2

POURED CONCRETE TO MEET CITY OF WYOMING
AND MDOT STANDARD SPECIFICATIONS

CITY OF WYOMING
ENGINEERING DEPARTMENT

CONCRETE BASE FOR WALK WAIT SIGNAL

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CHECKED BY - MB
DATE DRAWN -
DATE REVISED - MARCH 1990

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